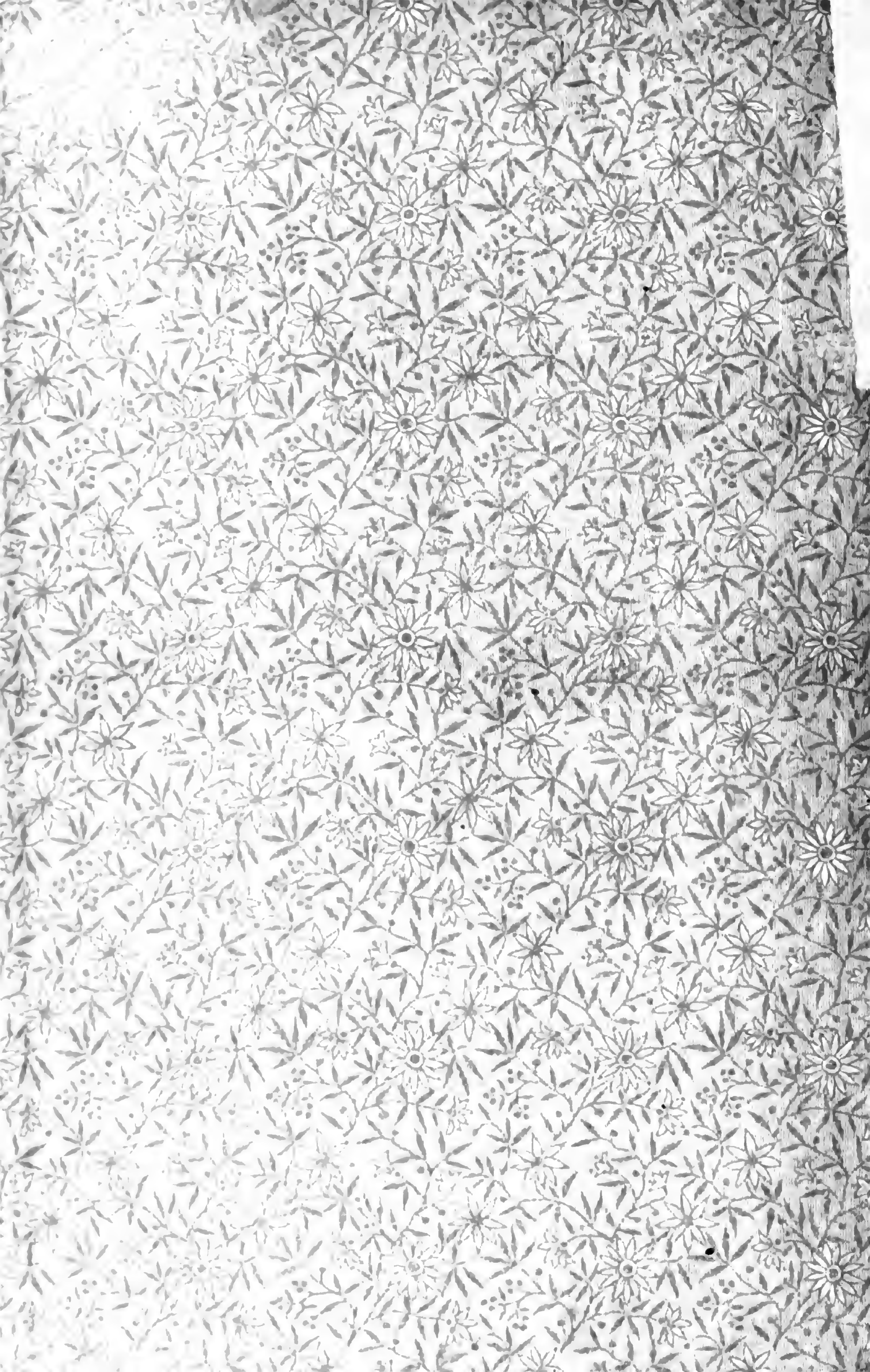
Commercial Series.

AMERICAN
INVESTMENTS



AMERICAN SECURITIES:

THE CAUSES INFLUENCING

INVESTMENT AND SPECULATION

AND THE

FLUCTUATIONS IN VALUES,

FROM 1872 TO 1885.

---

ason
By WILLIAM M. GROSVENOR,

Author of "Does Protection Protect?"

NEW YORK:
DAILY COMMERCIAL BULLETIN, 32 BROADWAY.
COMMERCIAL BULLETIN PRINT.

1885.

THE COMMERCIAL SERIES.

CONTENTS.

TABLES.

APPENDIX.

DIAGRAMS.

INTRODUCTION.

The extraordinary movements of the stock market during the year 1884 invite a careful inquiry. Prices dropped lower than at any other time since the resumption of specie payments, losing in a few weeks well-nigh half of the marvellous gain which had been realized during two years and a half. Failures of extraordinary magnitude resulted, and gigantic frauds stained names hitherto of the highest honor. One-tenth of the entire railroad property of the country was thrown into bankruptcy, and many companies of good standing were compelled to pass dividends.

It was called on the Street "a rich man's panic". In the current phrase, there were no "lambs" that year. For the first time in the history of speculation, almost, the "outsiders" looked on with amusement while the skilled operators slaughtered each other. Those who had been most powerful in speculation, and had accumulated the largest wealth by operations in railway securities, were as a rule those who suffered most during this remarkable year. Especially, the men who had loaded themselves with all the securities they could carry in June, 1881, expecting to bring about a great advance in prices, after struggling for three years to unload on the public, were finally compelled to unload on each other. Those who had so long handled the stock market with success for their own benefit, and to the loss of the public and "the lambs", were the men upon whom the heaviest losses fell.

This collapse of prices was not caused by industrial disaster. It is true, there had been in "protected" manufac-

tures some depression, which had been attributed quite commonly to fears connected with an attempted change of the tariff. But, if such an apprehension had existed, it had been removed by the defeat of that measure before the collapse in securities began. The records of the year show that production, at least during the early part of the year, had continued at almost the maximum rate, nor had any important failures among manufacturing establishments disturbed public confidence. The railroads themselves had been doing better than usual. The published earnings for about 40,000 miles of railway in April, 1884, had shown, in comparison with the earnings of the same roads in April, 1883, a gain of nearly $1,300,000, or about 9 per cent., the increase in the mileage of roads reporting having been about the same, and for the four months ending April 30th, the earnings in 1884 had been larger than in 1883, though during the first three months the gain had been only about $200,000, traffic having been seriously interrupted on important roads by storms and floods.

Nor was the depression caused by monetary disturbance or stress. It came before there had arisen any serious question as to the ability of the Government to continue gold payments, and after an outflow of specie to Europe, which had continued for several months, had practically ceased. The rate of 60-days exchange had been reduced, May 1st, to 4.87¼ a 4.87½, at which price scarcely any profit could be realized on shipments, and in fact they immediately stopped. Near the end of April the Associated Banks of New York held a larger reserve than they had ever held during their whole history at that period in the year. In spite of some rumors that dividends on important railroads were to be passed on account of previous shrinkage in business, the reported earnings for April appeared to warrant encouragement, and the average price of sixty stocks at the close of the last Saturday in that month was but 2½

cents on the dollar below the average of their closing prices for the previous year, and was above their average at the lowest point in January, 1884.

Nor was the disaster caused by commercial failures. Favorable prospects as to the crops, and the large supplies carried over from 1883, had caused some depression in wheat during April, but before the first of May the price had recovered and was about as high as it had been at any time during the year, and no commercial disturbance had resulted from that or any other cause. There was prevalent a general feeling, early in May, that a good business for the rest of the year was to be expected. Indeed, the prospect was commonly considered much brighter than is usual in a year of Presidential election, and the promise of large crops, which was then held to justify a hope of increased activity in business, was afterwards bountifully answered. It is to be observed, moreover, that labor was generally well employed, and at fair wages. Prices, if not as low as they were afterwards, were low enough to render living cheaper than it had been for several years, while wages, until some reduction began in April, were on the whole about as high as at any previous time. Moreover, it was held that the moderate reduction in wages, which had been commenced, would help business materially by permitting increased production.

It is not to be inferred that this panic, after the manner of some others, came like thunder out of a clear sky. It was not wholly unexpected. Among those who had to do with dealings in stocks, whether as investors or operators, it had been felt for some time that the market was in a doubtful condition. Some had definitely predicted that failures of greater magnitude than had been seen for years must occur before the market could recover a healthy state. But these gloomy anticipations, it is proper to note, were distinctly based upon the conditions affecting that market, and not

upon the state of business throughout the country, which, it was commonly believed, had reached the turning point, and would thereafter improve.

The movements during the year involved a heavy loss to investors. Many who never speculate at all began the year rich and ended it paupers, and throughout the year the anxiety of those who had large investments was constant. Attention was turned sharply to the causes of decline, and particularly to those causes which directly concerned the prices of securities, rather than the prices of products or the general condition of business. More seriously than ever before, it was asked whether a progressive decline in the rate of interest, resulting from the accumulation of capital, had not permanently affected the value of securities. It was asked whether excessive railroad building, during the years preceding, had not so prostrated the business of transportation that, at least for a long time, it must continue comparatively unprofitable. It was asked whether the value of investments had not been permanently affected by the hostility of Congress and State Legislatures, and by the prospect of enactments which threatened the vested rights of many corporations and the management and profits of nearly all. But, especially, it was asked whether a serious change had not taken place in the management of corporations, and whether the growing abuse of corporate trusts for selfish and stock-jobbing ends, and the prostitution of courts and judges to aid dishonest schemes, had not created a distrust of securities generally, which would last for a long time.

An effort to throw light upon these questions has led to the inquiries contained in this volume. Undertaken without preconceived ideas to warp the presentation of facts, it may perhaps render the work of investigation easier for others, even though they do not accept its conclusions First, the course of prices of speculative securities during the year 1884 will be examined, with

the special influences affecting the securities of different corporations. It will be found that the path broadens as we advance. What had seemed a narrow combat between individuals broadens into a conflict of social, political and economic forces, which concerns every department of industry and trade, and the welfare of the nation in the highest sense. The search leads, indeed, into almost every field of economic interest. The reader will be invited to examine the legitimate influences which affect the general market for securities, and, in that connection, the operations of the railway companies, their earnings, and their combinations, and the effects of free competition or pooling restrictions upon their interests and the public welfare. He will be asked to consider the financial situation, the changes in the position of the banks, the movements of specie, and the connection of the banks with speculative operations. Attention will then be given to the prices of railway bonds, of United States, State and City bonds, of bank stocks, and of manufacturing stocks during the same year. These prices will be contrasted with those of speculative securities, and the contrast will be found eminently suggestive.

But it will be found that the year 1884 cannot be understood without a knowledge of the previous speculative movement. That year was a result of 1883 and of 1882, and these in turn were results of the years 1878–1881 inclusive, and these in turn were to a great extent results of the prolonged prostration of industry and depression of speculative values, which attended and followed the panic of 1873. Hence an examination of the prices of speculative securities for thirteen years is undertaken. The course of the market is traced year by year, and in decisive years, month by month. The influence of general or legitimate considerations upon that market at different periods, and of changes in the currency, of the course of the United States Govern-

ment with regard to payment of its indebtedness and the security of investments in its bonds, and particularly the influence of the development of the railway and telegraph system, is examined with especial reference to the observed changes in the state of the stock market. Next, a similar examination of the prices of other securities for the same extended period casts light upon the question whether the contrast between speculative and other securities, which is seen in 1884, appears at other times of great depression or of great advance. A review of the causes of the panic of 1873, and of the prolonged depression which followed, with the connection of speculative movements during that period with the legitimate influences which affected the value of securities, prepares for a consideration of the remarkable advance in prices from 1878 to 1881, the "boom" in manufactures, and the great expansion in trade. The culmination of this movement in 1881, and its connection with the state of agriculture in that year, and with the political influences which affected or were thought to affect the prospects of business generally, are investigated with especial regard to the speculative and other influences which produced the subsequent decline during the years 1882 and 1883, and the collapse of prices in 1884.

Attention is next given to the influence of the market for securities upon the internal and foreign commerce of the country, and upon the development of industries requiring large capital or increased facilities for transportation, and it is found that this influence has been very important. The effect of railroad-building upon agriculture and manfactures, the absorption of capital in railway enterprises, the dispersion and derangement of industries, and the effect of the construction of new and competing lines upon the value of older properties, are considered, and these topics lead to the inquiry how far excess in railway-building is itself a result of the facilities which speculative markets give, and of the

powerful impulses which they bring into operation. The influence of such markets upon the banking system is next considered, with the manner in which banking operations have become year by year more intimately connected with the market for securities, and the resulting changes in the modes of banking, and in the relations between the banks and those engaged in productive industry or in commerce. The influence of such markets as now exist, and of their present peculiarities, on the public morals, on solvency in trade and official fidelity, on legislative action and on the conduct of the courts, constitutes a topic of manifest importance. Finally, it is considered how far the methods now prevalent in speculative dealings are inseparable from an open market; how far the existence of such a market is essential to the public interest; and in what manner, if at all, existing evils may be checked by legislation or other governmental action.

CHAPTER I.

The Rich Man's Panic.

In May, 1884, a stranger walked down Broadway. To him a friend said: "Look into the Stock Exchange this morning." Why?" he asked. "Because there will be a great drop." An hour later the stranger looked down from the gallery of the Stock Exchange upon what seemed to be a mob of lunatics. Hundreds of men crazy with excitement were trying to sell anything, everything. Nobody wanted to buy. Through every door messengers were rushing in with new orders to sell. The rapid clicking of many instruments brought from distant offices and towns orders to sell. Men who had come into the room rich announced their bankruptcy, and went out to fight against fate, or, by surrender of everything, if possible to save their honor. Outside the Exchange a well-dressed throng crowded New street and Wall street and Broad street, and the passage of necessary traffic was blocked by the surging mob, and the excitement was as great as within the Exchange itself. All over the town, and in distant parts of the country, firms were failing, and men were laying down the results of lives of hard labor or daring enterprise, and the means of livelihood were vanishing for thousands of women and children.

What was the matter? The friend who met the stranger on Broadway told the story: "There is to be a raid on the market." The night before a little company of men, with plenty of money gained by a long campaign against the values of properties owned by others, had gathered at a hotel and determined to pluck the fruit. Heavily short of the market, believing that the decline in prices had gone nearly far enough, and if left to natural causes would quickly cease, and wanting to buy in order to reap their harvest, they

naturally determined to make a panic first. The circumstances favored. Failures had already caused general distrust. Alarm was in the air. Strong men who had staggered under heavy loads for three years were nearly at the end of their resources. The attack was made, and succeeded completely. Hundreds of investors, alarmed by the new decline when recovery had been expected, were frightened into selling. Houses holding great blocks of stocks, bankers who had made heavy loans on stock collaterals, great operators who had resisted the downward tendency as long as they had power, were forced to throw overboard their property. The buyers were the men who had sold, weeks or months before, a vast amount of property which they did not own.

Over the fortunes of either class of speculators the public has no tears to shed. One set lost; the other set gained; had both been out of existence entirely, many question whether the world would have been much poorer. But others who had no part in the speculative game bore much of the loss and the suffering. Honest and prudent investors lost heavily. Widows and orphans were left penniless. Fully 200,000 men, who were building railroads, soon found themselves out of employment because railroad building had stopped. Iron and coal mines, iron furnaces and machine shops, rail-mills and locomotive works, all over the country, were compelled to stop, and want stalked into thousands of homes. All this, because the market dropped.

But was there any actual change in the value of stocks? Of all the railroads affected, was there a single one earning less, or able to earn less, on the day the panic culminated than before? To what extent was there an honest market? To what extent did the market faithfully represent the value of property? It is evident that the immediate movement depended entirely upon the control of unemployed cash. For the day, it was simply a question of money. The men

who had the most money to spare made the prices. Those who had large resources, tied up in securities, had not as much power to make prices as those who had one-tenth of their wealth, or the power to borrow one-tenth as much. It is commonly believed that the sums of money used in speculative operations usually depend upon the judgment of competent men as to the future. But in this instance it was clearly not so, for the men who put down the market did so in order to buy, and did buy. Rightly or wrongly, they had concluded that natural conditions would not favor a further decline; that the lowest prices likely to be reached for a considerable time, unless by artificial means, had been seen. And they calculated that they could manufacture still lower prices for a few days only. The market, then, was in such a state that, when natural conditions were believed to justify an advance, it was for that very reason the more likely to be put down by those who wished to buy. Similar influences must govern in such a market when men want to sell. If they judge that, on account of the state of business in the country, or the condition of properties, or the conduct of managers, or the behavior of legislatures, it is time to sell things, they will first put up prices in such a market in order to sell at the best advantage. At the time under consideration, therefore, the market appears to have been essentially a false and deceptive one. It was in such a state that those who had least interest in any property had the most power to fix its price. Those who knew all about a property, who had managed it as wisely as they could, and who had invested most of their resources in its securities, had scarcely any power to control its price with the market in the state which then existed, in comparison with a reckless gambler who had not invested his money in anything. When such a market exists, the tendency therefore is to give an unnatural and most harmful advantage to those who have no part in the legitimate business or honest enterprise of the country.

The tendency is to make prices lower than they otherwise would be. The existence of that state of things affects the values of all properties of which the prices are fixed in such a market.

The essential and distinguishing feature of such a market is that it is no longer under the iufluence of deliberate purchases or sales by investors, but has fallen into the control of speculators. The investor does not sell property which he does not own. A belief that prices are going to rise for legitimate reasons does not prompt him to empty his holdings upon the Street. But an examination of the prices of securities during the year 1884 shows that the course of the market, from week to week, and from month to month, was generally in direct opposition to the influences which should have controlled it. Considering the condition of the properties represented by the active securities, we shall see that the worst had not come when the prices were worst. The general condition of business, then hopeful, afterward became hopeless. Manufacturing establishments by the hundred, in no way connected with the stock market or with railway enterprises, though actively employed when prices were lowest, afterwards were closed and silent. Prices of products, alike of agriculture and of manufactures, declined heavily toward the close of the year, months after the lowest price for securities had been reached, and after a sharp reaction upward had followed. The strife between the railroads had not reached its worst. But when the worst came the speculators, having bought largely and being large holders, wanted to sell, and so strove obstinately to support the market and to make higher prices, hoping to unload on the public. Thus, neither at the time of greatest depression in active securities, nor later in the year when the general condition of business was most unfavorable, did the stock market reflect faithfully the influences which raise or depress in real value the properties represented. As respects quo-

tations at any particular time, or the movement from week to week, the market was then essentially false and deceptive.

Yet it is not to be inferred that the market was not greatly influenced by the general condition of business, or by changes affecting the value of property. Neither is it to be hastily inferred that the speculative market governed or moved in harmony with the market for securities which are held for investment, and with which speculation has little to do. Still less is it to be inferred that the market for stocks is always or inherently artificial or false. At times when the public is freely investing the accumulated savings of years, with genuine prosperity, and keen hope, and solid growth, and a boundless confidence in all enterprises, new or old, good or bad, we have repeatedly seen the most powerful speculators overwhelmed by the tide, defeated in every attempt to bring about an artificial reaction, and forced to take losses as a penalty for want of confidence in the general prosperity. Such a state of things prevailed, as we shall see, in 1879 and 1880. Or, on the other hand, when the public is selling freely and heavily because the condition of business has clearly changed, when losses in commerce are compelling many to draw upon invested reserves, when prostration in manufactures forces many to use the accumulated savings of previous years in order to escape disaster, when general distrust prevails and investors are anxious to get money instead of any security, even the best, then the boldest and shrewdest speculators are often swamped in the attempt to resist the tide. Of this, too, melancholy examples have been seen within the past few years. In the long run the speculators cannot resist the general conditions and tendencies of business. Hence the shrewdest of them always aim to have their operations in harmony with the tendency of events. But, whether for temporary or for permanent reasons, the public had little to do with the prices of active stocks during the year 1884, and the record of prices

is essentially a record of the results of speculative operations, under conditions which it will be profitable to examine.

The year opened with legacies of disaster from the speculative operations of 1883. At the very outset the market was shaken by the mid-night appointment of a receiver for the New York and New England Railroad. Shortly after came a break in the securities of the New York, West Shore and Buffalo, and the appointment of a receiver for the North River Construction Company. The Street had hardly recovered from the effects of this shock when another break took place in the Northern Pacific securities, of which immense blocks were thrown upon the market. Nearly all active stocks sympathized by declining in price. It was the general belief at the time that this depression was, at least in part, artificially created in order to facilitate several purchases, and particularly one of 90,000 shares of the Villard stocks, which were bought, January 26, by a syndicate composed of Messrs. Gould, Field, Drexel and others. The railroad earnings were almost as large for January, 1884, as for January, 1882. No exports of gold had yet taken place, and the possibility that exports might occur was only considered by a few bankers, who thought that the glut of money might thus be relieved. The cotton manufacture had not yet curtailed production, nor were the prices of standard sheetings reduced until the very end of the month. During the latter half of January mercantile failures greatly diminished in number. The New York banks held at the close of the month a surplus large almost beyond precedent; domestic exchanges were in favor of New York, and mercantile discounts for double-named paper were 4 to 4½ per cent. for two or four months. Thus, with many circumstances indicating that a better state of business might be at hand, and with scarcely a symptom of approaching disaster, the lowest prices of the first three months of 1884 were made about January 21st. On the 26th of that month

the syndicate made its large purchase of Northern Pacific stocks. The character of the market suddenly changed. A powerful combination to advance prices became known. A vigorous campaign against "the shorts" began, and the quotations moved upward with notable rapidity.

It is a striking fact that the general condition of business began to wear a more unfavorable aspect from the very week in which the change for the better in the stock market took place. Unfavorable railroad returns began to come in, so that a financial journal remarked: "While the decline in prices in the latter half of 1883 was made in the face of large railway earnings, the upward movement of February was made in spite of many unfavorable reports of railroad earnings which were coming to hand." It was a more important change that in February the exports of gold began, and the exports of breadstuffs diminished, partly in consequence of a speculative advance in prices. The movement of gold, though not large as yet, called attention to the uncertainties of the monetary future, though for the time it was considered by many bankers rather in the light of a relief, because the supply of money had been over-abundant. But the bank reserves, after increasing until February 9th, began to fall off. It was believed that securities were being sent hither in considerable amount from Europe. The manufacturers of cotton took steps to curtail production, and reports were current that a great strike of operatives at Fall River was imminent. The weather was unfavorable during much of the month for business or for railroad transportation, and rumors of damage to winter wheat were widely circulated. It was in the face of such influences as these, distinctly less favorable than had prevailed in January, when the market declined, that the first combined effort during the year to advance prices was made. Until the latter half of the month it succeeded completely. Even then, when it was felt that some of the parties in the com-

bination had taken advantage of its partial success and had sold out, others went on with confidence; higher prices were again scored, and after only an insignificant reaction the highest prices of the year were made February 21st. Again the realizing by holders caused a little reaction, averaging 2½ cents for active stocks. But there followed a corner in Delaware, Lackawanna and Western, which on the first of March carried the price up to 139½ for cash. The market during this month was purely a speculative one. Had prices been unaffected by artificial causes, it is plain that they would have been higher in January, and lower in February. The consequence was that many, who had waited long for improvement in business, sold because they had come to need the money, or because their hopes had faded. Hence the market had to carry more stocks in March by many thousand shares than in January, because of the rise in February, which was not in harmony with the general condition of business, and met no response from the public. It had been overloaded before, as we shall see, and ever since 1881 its load had been increasing. But February added to the burden because holders here and in Europe, prompted by need or discouragement, emptied their holdings in the only market in which buyers could be found.

In the month of March, again, the circumstances would naturally have led to a considerable decline in prices. The movement of gold became large, and during the month the exports exceeded the imports by $11,300,000. To appreciate the natural influence of this fact it is necessary to recall the feeling of confidence which long-continued imports of gold had caused; a feeling so strong that many refused to believe that gold could again be drawn out of this country in any considerable amount. But when the exports occurred in March, it was explained that the banks actually had more money than they could use, and could spare gold better than anything else—that in fact gold had become so abundant

that it was the cheapest commodity in this country. Nor were the banks much weakened by the movement. At the end of the month, in amount of reserve held, they had only fallen back to the point at which they began the year, and held a larger reserve than they had ever held before at the close of March. Moreover, what would ordinarily have been called a large surplus was retained even to the end of the month A cause of the exports of gold was the shrinkage in exports of products, which was due in part to the fact that one speculative combination was supporting wheat at a price about as high as it reached in the advance early in February, while another was advancing cotton in the face of a declining consumption, and marked up the price during the month over half a cent. This advance was the less reasonable because, on account of the decreased demand, print-cloths declined early in the month, and it was understood that the demand for cotton products was disappointing to manufacturers generally. In the iron market, prices were steadily maintained at about the level of January, though season contracts for Lake ore were made at a decline of about 13 per cent from the price of the previous year. Shrinkage in consumption also caused a slight decline in the price of anthracite coal, from $4.50 in January and February to $4.40 in March The general tone of business was without energy or improvement, though not depressed materially more than in previous months. The spirit of hesitation and uncertainty was by many attributed to measures pending before Congress, and it was believed that when the session closed a greater activity would naturally appear. To this state of things the course of the stock market did not correspond During the first week it remained almost unchanged, and during the second week it advanced, a corner in New York Central carrying the price to 122, while the prices of other stocks in some measure sympathized. With a little decline in the later weeks, the level of prices

ended about where it began the month, but it was felt that in March, as in February, the support had been artificial, and prices had been made by speculative cliques, not only without the assistance of the public, but in spite of a continued emptying of securities by investors.

The month of April opened with a continuance of this artificial support. Indeed, it was not until the 17th that the market touched an average of prices lower than had been reached in January. During all this period the general course of events had been disheartening, and no reasonable man could have said that the conditions legitimately justified as high a range of prices in either of the later months as had been warranted by the state of things during the first month of the year. In April, though bar iron and steel rails were held steadily, pig iron dropped 50 cents, to $20 per ton, but coal remained steady, and the producers of Connellsville coke raised the price to $1.10 about the beginning of the month. The great event of the month was a sharp break in the price of wheat, which speculative influence had held for several weeks at a price entirely inconsistent with the price prevailing in Liverpool. With a large surplus stock on hand this country might have sold nearly or quite the whole of it, had the wheat market been left during the first quarter of the year to natural influences. Those who manufactured an unnatural price were obliged to let go in April, but it was then too late to find a market abroad for the large quantity which foreign consumers had already obtained from elsewhere. Nevertheless the price did not decline below 96 cents for the nearest month's option at New York, nor was there any week in which wheat could not have been sold in large quantity at above $1 per bushel. No failures of importance resulted from this break, and it was followed by another remarkable speculative advance, so that by the first of May the price of wheat was even higher than it had been in February. The reserves of the New

York banks declined during the month, and yet until the very last week were larger than ever before at the season, and in that week were scarcely smaller than the largest reserve ever held at the end of April. But it was to be noticed that, although the reserve was remarkably large, the deposits were also large, and though a surplus was retained, even to the end of the month it fell to less than $1,000,000 on the 26th, and the money market slightly hardened.

The natural influence of a decline in the price of grain under such circumstances was to strengthen stocks. In the expectation that prices would be adjusted to those of the European market, and that large exports of breadstuffs would give profitable business to the railway companies, higher prices for stocks were by many expected. It was reasoned, too, that the outflow of gold would be arrested at once, when the exports of breadstuffs revived. But any confidence due to such reasonings was disturbed after the middle of the month when prices of grain began to rise rapidly again. Reports of injury to the crop and of decreased acreage were as usual the pretext; their correctness may be inferred from the fact that the actual yield was the largest on record, and with intelligent people they had little weight. But gold continued to go out until the 25th with increasing volume each week. And it was not until Thursday, May 1, that the abundance of money in London, and the increased demand for special purposes here, caused the rate of exchange to be lowered, and thus arrested the outflow. Had the banks been in a position to be embarrassed by this outflow, some effect upon the stock market would have been justified. Instead, the banks were abundantly strong, and meanwhile the railroads, as afterwards appeared, were earning more money than in any previous month of the year, and gained $1,300,000 in comparison with the earnings of April, 1883. The fact is that the support of the market early in the month, and its subsequent decline, were both due mainly to

speculative combinations. It had been believed that the advance in February had been arrested by the large sales of some prominent operator. But it was nevertheless believed by others that Mr. Gould was heavily loaded with stock, and there was at least one combination formed with the especial purpose of assailing the securities in which he was interested, and the market generally. It is certain that the course of the market, day by day, during the latter half of the month reflected movements which were attributed to one or the other of three powerful cliques or combinations of speculators. The result of these conflicting efforts was a considerable decline, beginning on the 12th with the Wabash, Union Pacific and Oregon Navigation stocks, and continuing during the following week with a larger decline in Missouri Pacific and Union Pacific, and in the so-called Gould stocks generally, than in other securities. The market then rallied for a day or two, and afterward yielded to repeated attacks, directed sometimes at the securities in which Mr. Gould was interested, and at other times, many believed in retaliation, at the Vanderbilt stocks, and other active securities generally. The lowest point during the month was reached on the 29th, and from that day there was a considerable recovery, all classes of stocks sharing. But at that lowest point in April the average price of stocks was scarcely lower than in January. For three months the market had been held above that point, notwithstanding many unfavorable influences arising from the general condition of business, the crippling of foreign trade by speculation in grain and cotton, the exhaustion of their reserves by merchants and manufacturers, and by operators in all parts of the country who had been speculating in stocks, and the unloading upon a market already overloaded of a large amount of stock by investors here and abroad. The suspension of Mr. Keene on the last day of April was thought of interest only as it reminded men of the vicissitudes of speculation, even for

one of the most daring and for years successful operators. But in the struggle between strong men and strong combinations during the year 1884, he had apparently taken scarcely any part, and his suspension involved no one else.

Such was the state of the stock market when the month of May began. There was nothing to indicate that either of the opposing forces in the Board had been materially weakened. Of the gigantic frauds so soon afterward disclosed, there was current really no suspicion. Nobody imagined that three or four bank presidents and the president of the Stock Exchange were on the threshold of bankruptcy. There was a battle between speculative elements, as usual. But it was expected to end as usual, in the transfer of a little money from one set of men to the other. Few realized that the market had got into such a state that a general crash could be produced by events which would ordinarily seem of little moment.

Among the causes assigned at the time for weakness in the market during the early days of May, were the competition of railroad lines, the disagreements which threatened the existence of combinations to maintain rates, and the apprehension of a struggle between transcontinental lines for the control of properties held by the Oregon Railway and Navigation Company. But it does not appear that in any of these particulars the situation had changed to an appreciable extent for some time prior to the collapse. The competition between railway lines continued, but had grown rather less than more violent, and it was hoped that a new decision made by the Trunk Line pool, that rates should hereafter be changed only by the action of the committee, would tend to restrain future contests. No settlement had been reached between the Union Pacific, the Burlington and Quincy, and the other Northwestern roads, but the contest had continued for a considerable time, and had not changed in character. The condition of the banks and their

reserves afforded no explanation. During the week ending May 3d the banks had lost a little in reserve, but still held a surplus, and were increasing in strength, as afterwards appeared.

On Monday, May 5th, the market was strong, nearly all stocks sharing in the advance. And on Tuesday, the 6th, during the early part of the day, prices were fairly maintained. But when the Marine Bank closed its doors, trouble began. It was known that this bank was connected with the firm of Grant, Ward & Co., which had been operating very heavily, and that firm quickly suspended. Though at the time no one imagined that its liabilities were as great, or the losses involved by its failure as serious, as they afterwards appeared to be, the event gave a powerful advantage to those who sought to depress the market, and they used it to the utmost. The endorsement of Erie paper by Grant & Ward gave a legitimate reason for the decline in Erie Second Consols, which fell 2 cents on the day of the failure, 6 more the next day, and in all 16¾ prior to the end of the week. Erie stock, low as it was, dropped 3 cents the day after the failure, but others, not immediately connected in any way with the fortunes of the firm or of the Marine Bank, were vigorously attacked, and declined during the week, Lackawanna about 4 cents, Reading about 8 cents, Central Pacific 2½, Illinois Central 4¾, Union Pacific 8½, and North Western Preferred 6 cents. These are merely illustrations of the fact that some of the very best securities in the market were as boldly attacked, and, owing to the peculiar state of the market, with as much success, as others of little value. Nevertheless, in spite of the decline in these stocks, the market was on the whole surprisingly sustained, so that at the close on Saturday, notwithstanding a week of great excitement and heavy pressure, the average price of all active stocks was only 3 cents lower than it had been at the close on Monday, before the failure. The reason was that

there was still a powerful clique wishing to advance prices in order to sell, while some of the clique who had labored to depress prices in order to buy, when decline came, gave support to prices by their purchases. The men who put stocks down believed that they ought soon to go higher. The men who sustained stocks believed that prices ought soon to go lower. Thus far there had been no panic, but only a continuance of the prolonged struggle between combinations in the Exchange, with more than the usual advantage to the operators for a decline, because of the great failure and the distrust which it occasioned.

On Saturday afternoon, another failure which proved to be important was announced; that of the Northwestern Car Company, involving also Senator Sabin. To the efforts made to avert this disaster was attributed part of the depression in some of the best securities toward the close of the week. In consequence of it, on the Monday following the attacks were still more vigorous, and as to Northwestern securities, more successful, and the average of prices yielded about one cent more. Nevertheless there was as yet no general panic, nor fear of wide-spread disaster, and on Monday there were indications, especially in some stocks, of a sharp turn against the sellers, which led not a few to anticipate a stronger market the next day.

On Tuesday, May 13th, after some hesitation, the market began to turn downward again. Late in the afternoon it became known that there was trouble in one of the banks On Wednesday it was announced that a defalcation of $3,000,000 had been detected in the Second National, and from that time the panic began. It was powerfully aided, of course, by the clique which had been speculating for a decline, and which reaped that day the fruit of its labor. The failure of the Metropolitan Bank, the Atlantic State Bank of Brooklyn, Hatch & Foote, Hotchkiss, Burnham & Co., and five other stock houses, caused general alarm about

the solvency of firms and banks, and securities were thrown overboard without regard to their value. Nevertheless the purchases made during the day by those who had speculated for a decline caused, toward the close, an improvement in prices, and the banks, by agreeing to sustain each other, and to issue certificates against securities deposited, endeavored to restore confidence. But on Tuesday the depression in the average price of sixty stocks was about 1¼ cents, and on Wednesday at the close prices were over 3 cents lower than on Tuesday. The next day an improvement appeared, because of the success of the Second National Bank in making good all payments through the prompt action of wealthy directors. It was also stated that the Metropolitan Bank would be aided by the Associated Banks and enabled to resume at once, so that during most of the day prices advanced quite smartly. Nevertheless a sharp attack upon the stock of the Bankers' and Merchants' Telegraph Company, followed by the failure of A. W. Dimock, its President, resulted in a fall from 119 to 45. It was thought by not a few that, in the crippling of this company, one object had in view by those interested in the Western Union Telegraph had been attained. But, later in the afternoon, great excitement was caused by the suspension of one of the oldest and best known houses in the Street, of which the junior member was at the time the President of the Stock Exchange. Before the market opened the next day it was learned that the Newark Savings Bank, an institution with large deposits, was so connected with the firm referred to that it must also fail. But the depression thus caused did not last long, and the market was generally sustained so well that prices at the close on Saturday were fully 3 cents above the average at the close on the day of the failure of the Metropolitan Bank. Indeed, after two weeks of constant excitement, the fierce battle between the opposing elements had left the market at the close of business May 17th only

$4\frac{1}{2}$ cents lower than it had been at the close May 3d. Nevertheless, in the operation some strong houses and several banks had been wrecked, and important corporations had been forced into difficulties from which they were not extricated for a long time, or not at all

The development of these difficulties, as in the case of the Reading and the Louisville and Nashville, was the characteristic feature of the market during the week that followed. It was found that the President of the Louisville and Nashville had been speculating in the stock, and using the funds of the company to sustain it. It was found that the Reading, which had guaranteed dividends on the Jersey Central, was short of cash, and it was soon afterward found necessary to put the company into the hands of a receiver again. A rapid decline of 21 cents in Jersey Central stock was accompanied with great depression in other coal properties, and Lackawanna lost over 13 cents, and Delaware and Hudson over 10 cents, while the liquidation in Northwestern stocks also caused great depression. This culminated on Saturday, the 24th, in the lowest prices thus far reached during the year The average price of sixty stocks on the 26th of April had been $58.78 per share of $100. The average of the same stocks at their lowest point early on Saturday, May 24th, was $45.67, a decline of over $13 per share. During the latter part of the day prices began to recover vigorously, and from that time, for fully a week, the market remained decidedly strong.

In reviewing this depression thus far, it is to be observed that the general condition of business, or the condition of the particular corporations whose securities were in question, played a very subordinate part. The prevailing tendency of the market was to move against the tendency of business generally; to fall, because the strong man sold, when circumstances existed which induced others to buy, and to rise, because the strong men bought, when the circumstances

were such as to induce others to sell. In January the general outlook was promising, and accordingly the market was artificially depressed in order to buy. In February the outlook became unpromising, and in March still more so, and the market was artificially advanced in order to sell. In April exterior circumstances warranted a stronger market, and men who had overloaded themselves hitherto seized the opportunity to unload on others. Summer was coming and they wanted to be out of stocks; crop uncertainties were to be avoided; and there were apprehensions that the Presidential nominations, or the events of the campaign, or the results of the election, might bring about a serious decline. In May the natural conditions early in the month were decidedly better, and then an artificial attack in order to buy stocks disclosed one rotten spot, and that uncovered another, and so on until the great depression had been effected. Within the market there was simply a struggle between opposing forces in speculation. But there was a tremendous advantage always on the side of those who sought to depress prices because, on account of the speculation of former years there was a great deal of unsuspected unsoundness, and the market had become overloaded, not only by the events of 1884, but long before, and, as the struggle went on, one house after another was found to have been thoroughly undermined and rotten through previous speculative losses. Grant & Ward did not fail because of anything that happened immediately before their suspension. It was at once evident that enormous losses had for a long time been covered by gigantic swindling operations. The collapse of Eno was not due in the main to fresh losses. For a long time he had been covering up a great defalcation, which was certain to be exposed sooner or later unless an important and favorable turn in the market took place. The president of the Newark Savings Bank had lost heavily in previous operations, and had involved himself and his bank,

and the additional losses in May only served to uncover a rottenness which it was inevitable would sooner or later be exposed. The Metropolitan Bank had long been largely concerned in Southern railroad and other securities, and, as it proved, had thereby sustained great losses. So it was with other houses. In the main, the dishonesty where there had been dishonesty, and the misfortune where there had been only honest loss, had occurred in previous years. In scarcely a single instance was an important failure traceable to transactions or to losses of a recent date, except as such losses sufficed to uncover an insolvency previously existing. The market had been overloaded and rotten for a long time. Houses and banks supposed to be powerful, and operators supposed to be rich, had been previously crippled, and yet had been holding up stocks by the reckless use of their credit and the money of others. The collapse of May, in short, was simply a disclosure of the fact that prices had been for a long time unsound, and based upon gross abuses of trusts and reckless straining of credit. When disclosures removed the fraudulent support which had been for a long time given, it was found that the prices which had been made had been essentially false and deceptive.

II.

Liquidation After the Panic.

The first half of 1884 saw a great depression in the prices of stocks, notwithstanding the prospects of improvement in business. The latter half of 1884 witnessed a vigorous effort to advance the prices of stocks, notwithstanding a remarkable decline in trade and a general prostration in industry. The success of this effort for a time, the influences which aided it, and the subsequent collapse both of prices and of speculation in stocks, give interest to the history of the latter half of the year. But it is necessary first to trace the progress of the liquidation which followed the panic of May.

The market for May closed with a sharp upward movement. The average price of sixty active stocks rose from $45.67 per share, at the lowest point on the morning of May 24th, to $48.89 per share at the close, May 31st. In many stocks, which had been specially active in speculation, the advance was much greater, and was sufficiently rapid to suggest the unsoundness of the recovery. Thus, New Jersey Central rose 7¾ cents on the dollar, St. Paul rose 7⅞, Northwest preferred rose 7 cents, Lackawanna rose 9⅝ cents, Missouri Pacific rose 17⅜ cents, Pullman Palace Car rose 12½ cents, Union Pacific rose 7⅝ cents, and Western Union 7⅛ cents within the seven days. Such advances were evidently caused by the over-sold state of the market. In the days of panic, the great majority of speculators, finding all prices going down, made haste to sell more just at the time when the shrewder and abler operators were closing their accounts and reaping their harvest. For the moment, those who had been engaged in a long campaign to depress securities became desirous of an advance, in common with those who

had labored in vain to uphold prices. The speculative cliques were on one side and the speculative outsiders on the other, and the result of course was disastrous to the outsiders.

There was nothing in the condition of affairs during the last week of May to warrant any change of tone, much less so great an advance as was made. The upward movement was simply the result of temporary speculative influences, and the shrewder speculators well understood that it could not last. Accordingly it was said by a financial journal that the rapid rise in stocks was "unfortunate because premature;" that its consequences were, besides a covering of stock contracts, "free selling to realize profits, and an absolute check to any investment demand, either domestic or foreign;" and that it "must finally end in a serious decline more discouraging than the fact itself merits." These anticipations were fully justified. The operators for a decline, who had bought in the days of panic, soon began to sell again largely. The operators for an advance, as soon as the market had moved upward rapidly a few points, seized the opportunity to lessen their holdings. Thus the upward movement was checked within just one week, though for another week the average of prices remained substantially unchanged, as some stocks continued to advance still farther, while others under the pressure of sales began to decline. By the 7th of June, without advancing at any time materially beyond the closing point May 31st, the average of sixty stocks had dropped to $48.76, and by the 14th of June to $47.62. During this time the market was almost wholly under the control of speculative influences. Demand for investment purposes had been prevented by the rapidity of the rise, while the business outlook was not so clear as to justify a belief that the advance could be considered permanent or safe. In consequence, liquidation began again, and continued without ceasing until the 27th of the month.

In a measure, too, the old division of speculative forces was restored. Those who had for a long time been operating for a decline, although they had felt in May that the decline had gone far enough, were led to a different belief, and engaged in a new campaign with larger hope and larger resources.

An understanding of the speculative forces affecting the market during the month of June would not be complete without some reference to the political sympathies of leading operators. It happened that many of the most conspicuous holders of stock, who had for a long time operated to prevent a decline, were warm supporters of Mr. Blaine, who was nominated early in June. It also happened that many of those who had been particularly active and bold in operating for a decline were strongly opposed to his election, and in sympathy with the opposite party. Hence the advance early in June was by some hailed as a mark of confidence that Mr. Blaine would succeed, and it was correspondingly deprecated by others who opposed him as being likely to strengthen him in public opinion. Naturally those active speculators who were his opponents engaged with more zeal than before in the effort to depress prices. But those who were operating for an advance were discouraged, alike by a consciousness that the general condition of business did not favor an upward movement, and by the political hostility to Mr. Blaine within the Republican party, which led at once to demonstrations that seemed to render his success improbable. On the one side there were operators who maintained, day by day, in the heated political discussions about the Street, that Mr. Blaine could not succeed and that the success of his party would be disastrous to business, while its defeat would bring a great revival of public confidence, and of industrial and commercial activity. On the other hand there were those who maintained, with equal earnestness, that Mr. Blaine would be found the strongest candidate his party could have nominated ;-that its success was necessary to industrial and

commercial welfare; and that a genuine and lasting recovery from the depression of the two previous years could be secured only by the success of that party. By these conflicting opinions and sympathies, it is necessary to remember, the stock market was to some extent governed, not only during the month of June, but until after the election had taken place.

As a result of these speculative forces, co-operating with intense political sympathies, the upward movement which had been so rapid late in May was checked early in June, and was followed by a renewal of liquidation. Great failures did not come to cause panic; noteworthy disasters were lacking; and the general tendency of business, though by no means satisfactory, was at least less gloomy during the month of June than it had been before. The prospect as to the crops was remarkably good, and it soon became certain that the yield of wheat and of corn would be nearly if not quite the largest on record. The gradual decline in prices of grain brought about some increase in the foreign demand. Confidence that the farmers would find their labor rewarded by a generous yield, and would therefore have means with which to purchase largely of manufactured products, led to a more hopeful feeling and greater activity in many branches of industry. The banks of New York, quickly recovering from the panic, gained in reserve with great rapidity, so that by the end of June their surplus was over $16,000,000, and by the 5th of July it was nearly $24,000,000—considerably larger than at any point in their previous history.

In spite of all this, the liquidation continued until late in June, reaching its lowest point on the 27th. The average price of sixty active stocks, at their lowest point that day, was only $41.54. It showed a decline of $7.35 from the closing quotations of May, and was $21.14, or nearly 34 per cent., lower than the average February 16th. In the appendix, table No. 1, will be found the quotations of the


62
61
60
59
58
57
56
55
54
53
52
51
50
49
48
47
46
45
44
43
42
41
40
139
138
137
136
135
134
133
132
131
130
129
5 12 19 21 2 9 16 21 1 8 15 22 29 5 12 19 26 3 10 17 24 31 7 14 21 27 7 11 19 26 1 9 16 22 29 6 13 20 27 4 11 18 25 1 7 15 22 29 6 13 20 27 31
JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEP. OCT. NOV. DEC.

stocks included in this computation for each week of the year 1884, and at the points at which the highest or lowest averages for all stocks were reached and the different movements during the year culminated. Examination of this table will show that while in some cases prices were lower in May than in June, in a large majority of instances the lowest prices were recorded in the later month, alike for the most substantial and valuable securities and for the most worthless objects of speculation. In a diagram opposite this page, the course of the upper line shows the changes in the average price of the sixty stocks included in the table just mentioned. Beginning with $62.40 in January, and falling on the 21st to $57.95, recovering in February to $62.68, and thence declining but little till April, this line presents to the eye more clearly than any column of figures the rapidity and magnitude of the subsequent decline, the premature and hollow recovery late in May, and the progress in liquidation during the month of June. Drawn on the same scale, but ranging from 130 to 138, the lower line shows the comparatively insignificant fluctuations in the average price of forty stocks, not active in speculation, week by week during the same year. The list of these stocks, and the influences governing the changes in their price, will be considered hereafter. But their utmost decline, from $138.25, April 26, to $130.20, June 27, was less than 6 per cent. of their value, while the decline in the stocks active in speculation during the same nine weeks was $17.24, or nearly 30 per cent. of their value April 26, and during the year they had declined 33.7 per cent. Without further explanation of the phenomena, the diagram at once suggests that the cause of the great downward movement in active stocks during the year 1884 must be sought mainly in the operations and events of previous years. Had prices been at a normal level when the year began, had the condition of the stock market been healthy and the prices made therein an honest

measure of values, it is plain that no subsequent events which transpired prior to the close of June would have produced such a decline as was witnessed. But if prices had been artificially sustained above their proper level before the year 1884 began, and if in sustaining them the market had wholly lost its legitimate character and its connection with the public, and had become a mere arena for speculation, and if, moreover, in giving artificial support to prices during previous years, many banks, firms and individuals had not only sustained heavy losses, but had abused sacred trusts, had diverted to speculative uses the money of others, and had imposed upon the confidence of friends, then the events which transpired early in 1884 would suffice to account for just the phenomena which have been described. When we come to examine the course of the speculative market prior to 1884, there will be found abundant confirmation of the conclusions to which these facts already point. A diagram which appears in Chapter 4, showing the course of prices for thirteen years, will make it clear how closely this explanation fits the facts. The market of 1884, prior to the first of July, was in all its esssential features a result of the markets of 1881, 1882 and 1883.

It was natural that the turning point should come in the last week of June, for many reasons. The Democratic National Convention was about to assemble. Adherents of that party, having been generally convinced that the nomination of Governor Cleveland would result in success, and therefore, according to their opinion, in a great improvement in business and in the industrial condition of the country, saw clearly as the convention drew near that the desired nomination was certain. On the other hand those who had long been sustaining prices, with opposite theories both as to business affairs and as to the influence of political events, were naturally eager to seize the first opportunity to bring about an advance. About the close of June it became

known that the crops were out of danger, and that the yield of wheat would be larger than in any previous year. About the same time the reserves of the New York banks mounted very rapidly, and soon reached a higher point than ever before. A small importation of gold from Europe indicated that a returning tide, as yet of unknown magnitude, had set in. Under such conditions it was most natural that all the active and influential men of the market should for once be united in efforts to advance prices. Accordingly a recovery of great rapidity began just prior to the 1st of July, and was pushed so fast and so far that by July 7th the average for sixty stocks had already risen to $46.02, an advance of about $4.50 per share. At this point the movement halted for a single week. The Democratic nomination had been made and the advance had been so great as to induce large realizing sales. Both causes operated to bring about a general shifting of the relations of men to the market. Then were formed the new combinations, based upon the new state of facts, commercial and political, which governed the market for about two months thereafter. To a great extent the relative positions of men were altered. The market was still heavily burdened with stocks, for there had not been at any time during the summer a considerable demand from investors, and the public had taken no active part. Those who held largely, but believed that the result of the Presidential election was likely to cause a decline, were anxious to see, prior to that event, an advance sufficiently sustained and imposing to induce purchases by the public and by investors, so that they could lessen their holdings at better prices. On the other hand, those who correctly anticipated the success of the Democratic candidate, and believed that a period of great prosperity would then be ushered in, changed their position late in June or early in July, were anxious to buy, and seized every opportunity during July and August to increase their holdings. Meanwhile the gen-

eral outlook continued more favorable. Grain declined in price, and the outward movement largely increased. The exports of merchandise nearly equalled the imports in value in July, and exceeded them in August, and considerable imports of gold began, so that during the two months the net imports of gold amounted to nearly $5,000,000. The reserves in the New York banks, which had risen by the 12th of July to almost $99,000,000, a point never exceeded at that season except slightly in 1881, mounted rapidly to more than $109,000,000 by the third week of August. This enormous accumulation of unemployed money fed the flames of speculation. Banks and others were anxious to loan balances at very low rates, often at half of one per cent. a year on stock collaterals, so that buyers who could carry on borrowed money any dividend-paying security could expect a comfortable interest besides the anticipated profit from an advance in prices. Thus many potent influences, the magnitude of the crops, the accumulation of money, and the relative attitude of speculators, conspired together to favor an advance which, had the condition of industry and of railway properties been altogether favorable, would naturally have raised prices above the average with which the year began, had that been near the legitimate level. The actual result was that by the 1st of August more than half the difference between the lowest prices of June and the highest of February had been recovered, and the average of prices was $52.56. By the 22d of that month a further advance, succeeding a brief reaction, had lifted the average to $54.45. In other words, about six-tenths of the decline from February 16th to June 27th had been recovered in a little less than two months.

But this advance, though in part based upon legitimate considerations and upon actual changes of a favorable character in the condition of business and of property, was mainly due to the speculative and political circumstances,

which threw for the time nearly all the strong men of the street on the same side. Hence it is natural to infer that the advance was greater than the condition of business justified. The controlling influence was the concurrent desire of nearly all strong speculators, some to prepare a better market on which to sell in the summer, and others to advance prices in expectation of realizing at a still greater advance after the Presidential campaign had ceased to disturb the country. Early in August, those of the first named class endeavored to realize. A quick reaction warned them that the market had not yet substance and solidity enough to satisfy their wants. They joined again in the uplifting process, and hoped still for the appearance of an army of investors. But late in August the situation changed. Those who had sought a market in order to sell, perceiving that the desired recovery in business was not at hand, seized the opportunity to unload rapidly as many of their stocks as possible. Then began a decline which, as the diagram already given will show, continued with scarcely any interruption until the result of the Presidential election had been made known. During all this time political considerations largely influenced the course of dealers. The strong speculative forces being no longer arrayed on one side, the market declined because business generally was neglected and stagnant, and the political uncertainty clouded all prospects. Directly after the Presidential election very low prices were made. The result was by many thought to be uncertain; they believed that another electoral dispute might arise, in which they apprehended that the peace of the country might be disturbed. As the result became clearer, those who had confidently reckoned upon the election of Mr. Blaine, and believed that it would bring about an advance in prices, made haste to sell. The lowest point, reached on the 7th of November, was an average of $44.86, so that the Presidential election and its uncertain results pushed prices

somewhat below the lowest point touched in the panic of May.

The next movement also had a political origin. At least in part, it was due to the gratification and the hopeful spirit of those who had prevailed in the election. Prices rose for three weeks with considerable vigor, in spite of growing discouragement in manufacturing and business circles. But those who had anticipated a depression after the election were not slow to sell largely at the better prices offered. They quickly transferred as much of their holdings as they could to others who were hopefully buying, and the result proved that they were right in the belief that the general condition of industry and of business was not such as to warrant the upward movement. On the 29th of November the average of prices was $47.73, and the 27th of December it had fallen to $44.29, a lower point than had been reached at any other time during the year, excepting on the 27th of June, and during the three or four days preceding that date. Though a slight recovery followed, as is usual at the close of the year in anticipation of January investments, it may fairly be said that this depression once more showed clearly the fictitious character of prices made prior to the end of May and during the month of August. It warranted the belief that, but for political influences, there would have been little recovery from the depression which occurred about the time the campaign closed.

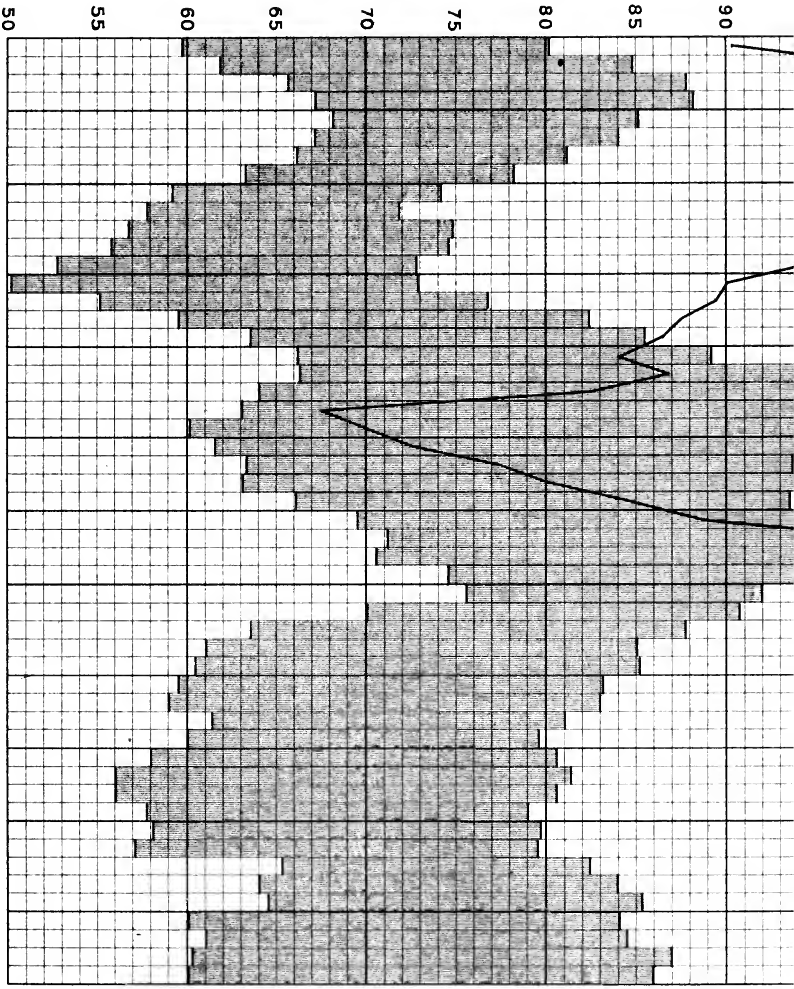
Thus the market in 1884, as to speculative securities, appears to have been from the beginning to the end an unreal and fictitious one. At no time, either in the advance of February or in the panic of May, in the subsequent rally or in the prostration of June, in the remarkable advance of July and August, in the depression attending a disputed election, or in the rally of November, had there been evidence that prices reflected the deliberate judgment of the public in the valuation of securities. Even in the depression near the

end of December speculative influences were very powerful, and those who sought revenge for previous losses, by depreciating the property of others who had served them the same ill turn months before, undoubtedly pushed their advantage to the utmost.

In considering the influences which shape the course of prices, the condition of the New York banks has been frequently mentioned. As the movement in the reserve of the banks in 1884 was altogether extraordinary and unprecedented, it seems proper to give it special attention. A diagram opposite page 40 shows how widely the amount of the reserve held during the year, and the changes in the amount of that reserve, differed from the record of previous years. In 1878, the year of great depression which preceded the resumption of specie payments, the banks held less than $60,000,000 at the beginning of the year, and the amount increased in January as usual. But the lack of commercial and industrial activity prevented the usual outflow of money in February and March, so that in the last week of March the banks still held more money than in January. Again, the usual return of money to the banks in April, which has swelled the reserve almost every year, did not appear; the changes were insignificant in amount. The usual summer accumulation of idle money then began, which carried the reserve up to nearly $80,000,000. In the fall the usual outflow occurred, and the lowest point of the year was reached in October, about $56,000,000. In 1879 specie resumption brought a great activity in the spring. After rising to nearly $73,000,000 in January, the bank reserves were drawn down to $50,000,000 about the first of April. But the usual recovery then followed; the banks were stronger in May than in January, and monetary disturbance late in that month did not prevent the usual summer rise, which reached $77,000,000 about the 1st of August. The normal demand during the fall curtailed the reserve to

$57,000,000, and the activity of business employed all that the banks had to spare. In 1880, again, a similar course was followed, except that the banks, fortified by large imports of gold, carried larger reserves throughout the year. The January rise extended into February, and reached $75,000,000. The April decline went little below $64,000,000, and the steady advance thenceforward raised the reserve to nearly $92,000,000 about August 1. The usual fall outflow, because of very heavy business transactions, left the banks without any surplus about the beginning of December. Again in 1881, a similar course was pursued with a still higher range; the January rise lifted the reserve to nearly $84,000,000, and it declined to about $68,000,000 early in March; the usual summer advance then raised it to $99,000,000 in July, and it declined below $70,000,000 in October, with the surplus entirely exhausted by commercial demands. In 1882 the January rise reached $88,000,000, the decline reached $77,000,000 in March, and an advance followed in May to $85,000,000, and in July to $91,000,000. The reserves then declined to $70,000,000 in September and $67,000,000 in November, with the surplus exhausted in both months. Finally, in 1883, the January rise reached $87,000,000, and the reserve declined in March to $65,000,000. A steady rise reached $91,000,000 in July, and the subsequent decline reached $77,000,000 in October.

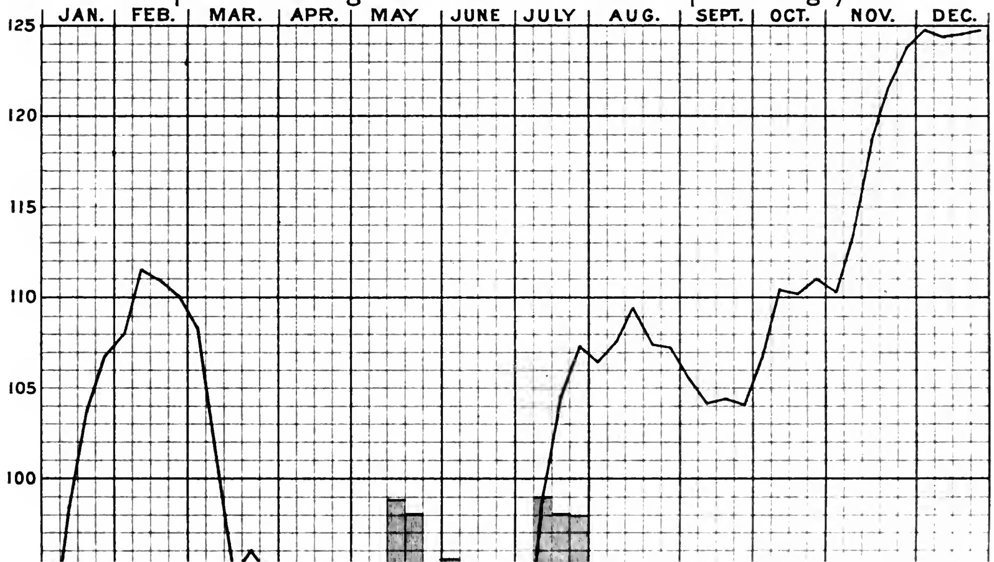
With this record of the ebb and flow of monetary tides for six previous years as a back-ground, so to speak, the extraordinary changes of the reserves in 1884 may be better appreciated. They are thus shown in the diagram on the opposite page, in which the shaded portion indicates the entire range in variation of the reserve for six years prior to 1884 by weeks, and the black line shows the amount of reserve held each week during that year. When the year began the reserve had risen above $90,000,000. The rapid accumulation toward the close of 1883 strongly indicated a



Shaded parts show highest & lowest reserves 1878-1883. B

New York Bank Reserves, Weekly, 1884.

Compared with highest and lowest for six preceding years.



ck line shows the Reserve weekly, 1884.

growing excess of currency in comparison with the wants of business. The January rise was prolonged into February, and lifted the reserve higher than ever before, above $111,-000,000, so that the decline by the first of April, though as large as usual, left the reserve above $89,000,000. But it was a significant fact that even then, so large were the loans and deposits, the surplus was nearly gone, and the outward movement continued as gold went out of the country until May 3d. Then began a recovery, when exports of gold had stopped. But this was followed at once by the disclosure of the rottenness which speculation had caused, by the panic and many failures, and by a shrinkage of the reserve below $68,000,000 in May. Afterwards came a rise which is more significant than any other monetary event of the past twenty years. The usual summer advance raised the reserve by the 16th of August to $109,000,000. Then appeared a slight decline, but the outgo was little more than $5,000,000 to the end of September, and the rise was then renewed, and continued until the reserve had mounted to almost $125,000,000 in December. The figures of the surplus, showing the excess of the reserve over the legally required 25 per cent. of deposits, are still more significant. Though the reserve was nearly $6,000,000 below the amount required in May, by the first of July the surplus had gone above $25,000,000—higher than ever before—and by the first of August it reached $32,000,000. The decline in September was small, and reduced the surplus less than $5,000,-000. Then it rose again to wholly unprecedented figures, reached $42,000,000 in November, and closed the year but little below $41,000,000.

It is noteworthy that this great accumulation early in the year attended, if it did not stimulate, the untimely speculative advance of February. Again it sustained the market in spite of the general course of events in March and in April. And again, it helped if it did not prompt the untimely and

ill-founded inflation of prices in July and in August. Thus far the accumulation of idle money produced the usual effect. But in the latter part of the year, the supplies of money, though enormous and wholly unprecedented, seemed to have no power to lift or to sustain prices. Money was offered by the ship-load on good stock collaterals at only half of one per cent. interest for a year, and borrowers were not found. Few wished to borrow, even to carry 8 per cent. dividend-paying stocks, for there was a general fear that the further decline in prices, which the condition of business threatened, and which the market seemed powerless to resist, would subject a purchaser to losses compared with which his gains in interest would be insignificant. The market sagged while money accumulated, as if borne down and oppressed by the weight of the very reserve which in ordinary times would give wings to speculation. Distrust was increased, strange though it may seem, by the very super-abundance of money which usually removes distrust. Speculation had indeed collapsed, when $125,000,000 of idle money in the banks had no power to lift prices, or to put new life into the Street.

In considering the causes of this collapse of speculation, the first place is naturally given to the depression in the general business of the country. Profits in all trade and manufacturing had been shrinking for some time. Thousands of men, who had invested their profits during good times in securities of all kinds, or who had chosen to keep in securities a part of the reserve funds required in their business, had been forced to withdraw the whole or a part of their funds from such investment. All over the world manufacturing and commerce had been comparatively unprofitable, and, though less seriously prostrated here prior to or early in 1884 than later in that year, had been much depressed even in this country. In place of large profits to be invested in securities, there were large losses to be met by

the withdrawal of money previously invested. At the same time the consciousness of a general shrinkage in business had caused not a little distrust in commercial circles. The lack of confidence had become a serious impediment to legitimate trade, as well as to speculation, and had been increasing. When large crops failed to bring the expected revival of business, great disheartenment naturally followed. Men who had endured the consequences of the short crops in 1881, and who had borne the disappointment of more scanty profits and a less vigorous recovery than had been expected from the fair crops of 1882 and 1883, believing that the effects of 1881 must at last have been overcome, counted with great confidence upon a full recovery after the unsurpassed crops of 1884 had been safely gathered. Their disheartenment was then proportioned to their previous hopes, and to the urgency of the need which previous disappointment had caused. Both in actual means for the purchase of securities, and in the confidence which prompts such purchases, the public was poor beyond measure.

Among dealers and operators who study "the tape" continually day by day, and think only of the shifting schemes of the kings of speculation, because these usually have most influence upon the momentary changes in prices, it is common to suppose that the outside public has not much to do with the course of the market. How mistaken this view is, the events of 1884 plainly disclose. In a normal condition, so to speak, speculation does not control any market, but is merely an incident. Its operation ought to be supplementary, and to follow the course of the forces which represent the natural supply and demand. The prices of securities ought to be made by the judgment of investors, and in a normal and healthy market are so made. If they believe that properties are worth more than before or have occasion to buy more, the stocks in the Street naturally rise in price or become scarce. If they are dissatisfied, or by previous

disaster are compelled to sell, the prices naturally decline, and the supply of stocks in the Street decreases. A speculation which obeys and seeks to take advantage of the changes in the natural conditions affecting prices, has its uses. It has been often defended, and the defense does not need repetition here, for a speculation of a very different sort prevailed in 1884. When the speculator usurps the direction which belongs to the investor; when instead of anticipating changes in price he sets himself to manufacture them; when he no longer obeys natural conditions and legitimate influences, but seeks to defy them; then the market becomes essentially false and its influence inevitably bad. Then it is that the investor, if he perceives that advancing prices no longer represent advancing values, wisely declines to hold securities so manipulated. Then it is that a just distrust multiplies the sales which a shrinkage in general business may prompt ; the investors who may be obliged to take part of their money out of securities choose to take out the whole, and leave it idle rather than have it exposed to the tricks of a market which no longer obeys legitimate influences. Then it is that the speculators presently find stocks coming into the Street from all directions, and are forced to go to the banks for larger additions to their shrinking resources, and if money is abundant and cheap, continue to defy natural conditions and to manufacture false prices still longer. But the result is only to entangle the banks in greater or less degree, and to make them bear part of the inevitable loss. For, sooner or later, the continued emptying of stocks into Wall street by the whole world makes the load greater than even Wall street can carry, without a tremendous shrinkage in the prices of the things carried. The shrinkage means ruin for some, and happy are the banks if in such a time they escape.

Precisely these conditions, it will appear, had prevailed for some time before the year 1884 began, and prevailed, as we

have seen, during the early part of that year. But after the purification by fire which the market received in May, and after the prolonged liquidation which followed in June, nearly all speculators and many investors were disposed to believe that a legitimate advance might be made and sustained. Just then the plethora of money, and the interests of opposing partisans, combined with the anxiety of some strong speculators who were still heavily loaded with securities, to produce a sudden and noisy "boom" instead of a gradual improvement. Speculators clambered over each other in their haste to get stocks, and the investors, seeing that the market was still in the complete control of men who preferred to manufacture prices, soon gave the market more stocks to carry. From that time to the end of the year the speculative market found itself powerless to resist the general tendency of industrial and commercial events. Money was super-abundant, but the banks no longer cared to lend to cripples, and the men who were not cripples no longer cared to borrow. A genuine improvement in business, at any time during the latter part of the year, would probably have been followed by another over-hasty and inflated advance, because the supply of money available was vastly in excess of the demands of business. But the general improvement did not appear, and a comparison of the prices of other securities will show that there was small reason for any advance in speculative stocks.

III.

Speculative and Other Securities Compared.

It has been asked by many whether the depression of securities in 1884 was not due to the abundance of unemployed capital, which rendered inevitable a change in the current rate of interest for money, and thus in the rate which could be profitably paid on money invested. This misconception, odd as it will seem to those who have examined the matter, obtained considerable influence in 1884, and among people who surely should have been able to perceive the truth. It ought to be observed, if the current rate of interest had been lowered by an accumulation of capital, so that the $100 which was thought worth $6 per year in 1860 had become worth but 3 per cent, the natural effect would be that a security representing 6 per cent yearly earnings, instead of being worth $100, should be worth $200. So of any change in the same direction, within recent years. If real it should have raised the price of all dividend or interest-paying securities. Evidence as to any changes during the year 1884 may be found by comparing the prices of other than speculative securities. Incidentally, evidence may be found as to any change in the profitableness of the business of transportation generally, for, if the business had become visibly and permanently less profitable, the prices of securities not active in speculation, but held exclusively for investment, would have been effected as well as the prices of speculative stocks.

In table No. 2 in the appendix are given such quotations for each week as have been found of forty stocks not of the speculative class, but which are as often quoted in the markets of New York, Boston or Philadelphia, as any not of that class. Among them are stocks of the Pennsylvania Central,

the Baltimore & Ohio, the Boston & Albany, the Lehigh Valley, the Pittsburgh, Fort Wayne & Chicago, the Morris & Essex, the Chicago & Alton, the Cleveland & Pittsburgh, the Harlem, the United Railroads of New Jersey, the Express stocks and others which are so closely connected with the commercial and industrial condition of the country that it might be supposed, if any serious change in that condition had occurred, the price of such stocks would have quickly reflected it. Accordingly, it is found that some change in the price of such stocks did occur. Yet it was not only very much less than the change in the speculative stocks, but it was altogether different in time as in degree, and evidently reflected the operation of different influences. It is true that some of the stocks here included partake to some extent of the speculative character. Thus the Pennsylvania stock, which is often active in speculation at Philadelphia, and is as dependent on the general condition of business throughont the country as that of any other corporation, East or West, was quoted at 121½, April 19, and fell to 109¼ May 24, and after recovering only two points, fell to 99¾ June 27, thus losing 21¾ in two months, or over one-sixth of its previous value. But the average loss in the more active stocks, it will be remembered, was more nearly one-third of their value. So the Baltimore & Ohio fell from about 198 to 174 in two months, or more than one-eighth, and the Boston & Albany fell from 180½ to 156, a loss of 24½, or more than one-seventh. The Chicago & Alton fell from 138 to 120, a loss of about one-seventh; the Fort Wayne fell from 133 to 120, a loss of one-tenth. But these changes, relatively so small, even in stocks which are to a considerable extent objects of speculation in other markets than that of New York, and which are peculiarly sensitive to changes in the condition of business, show that by far the greater part of the depression in May and June was due, not to any change in the

general state of business, but mainly to speculative influences, and to such influences operating particularly in the New York market. If it be supposed that all stocks found their level in June, and considering the freedom at that time from panic and from artificial combination to depress prices, perhaps the inference is measurably warranted, it must be concluded that the value of speculative securities had been far too high, and therefore they had much farther to fall than the less active stocks when liquidation came.

But putting all the forty inactive stocks together, it appears that their highest price for the year was reached about the end of April, and that there had been up to that point a quite steady advance. On the contrary, the prices of speculative stocks had varied widely, and were on the whole lower May 1 than at any earlier time in the year. This tends to confirm the inference that, if the condition of business in 1884 had governed, prices would have been higher about May 1 than in any previous month. But the decline in the inactive stocks, when it came, was relatively unimportant. From April 26 to May 24 the decline was about $11 per share on $57 in average value of the speculative stocks, or nearly 20 per cent But of the investment securities, during the same time, the decline was less than $4 per share on an average value of $138, or about 3 per cent. The subsequent liquidation depressed the average price of the investment stocks about as much per share as the speculative stocks were depressed during the same period, so that the average value at the close of June was about as far below the average value at the lowest point of May for one class of securities as for the other. But relatively to their value the decline in the inactive stocks was much the smaller. The table on page 12 of the appendix will show the price of these securities each week for comparison with the prices of the sixty active stocks. At page 33 in the last chapter will be found a diagram showing the course of

prices, week by week during the year, of the investment stocks quoted in table No. 2, in contrast with the prices of the more active stocks quoted in table No. 1. But the lower line, representing the investment stocks and beginning at about 136, represents an average price above 100, and varies through the year from $138.07, April 26, to about $130.12 July 7. During the later months a recovery appears, but the highest price after June, which was reached August 22, was only $133.51, and from that point to the close of the year, the dullness in the markets caused a decline to $132.09.

It will be inferred from this contrast that the prices of the investment stocks were to some extent affected, both directly and indirectly, by speculative influences. In a few of these stocks there is always somewhat active speculation at Philadelphia or Boston. But others were held by individuals or institutions whose ability to hold was impaired by the great decline in the prices of the more active stocks. These unhappy holders, driven to save themselves as best they could, and finding at times no market at all for many stocks of the more active sort, were forced to dispose of their most valuable securities at some sacrifice in order to secure immediate relief. Thus much of the depression in May and afterwards in June, in the prices of investment securities, was no doubt directly due to the fall in the prices of speculative stocks, and gave no evidence whatever of a change in the condition of business generally, or of a change in the transporting business, or in the profits of the roads particularly represented. But the fact that these securities did not afterwards recover the prices at which they had been maintained during the first four months of the year indicates either that they, as well as the more active stocks, had been held prior to the collapse at prices relatively too high, or that the actual profits of the transporting business had been reduced during the year, and were less near the close

than about the middle of the year, when prices were lowest. To some extent, both explanations are supported by other facts. Evidence has been observed tending to show that at the beginning of the year prices were generally too high, with reference to the earning power of the properties represented. Other facts have tended to show that legitimate trade and productive industry were more unfavorably affected during the later months of the year than at any time prior to the 1st of August.

It will be found instructive to consider next in order the changes in the prices of railroad bonds. These securities, representing many of the same properties which are represented by stocks already quoted, but having priority in claim upon the earnings, should command more steady prices and be less affected by speculative influences. This is found to be the case. In table No. 3 of the appendix, quotations of sixty railroad bonds are given, but only for each month in the year. The reason for this change will be readily understood. Most of these securities, being but rarely bought or sold, have from week to week the same quotations with but rare changes. Had only those been selected for quotation whose prices frequently change, the list must have been confined mainly to the securities of roads in financial difficulties, or of comparatively little importance. An effort has been made to represent the most important roads of the country as far as possible, by the selection of one class of bonds for each road, and preference has been given to that class which may be most appropriately quoted for a considerable number of years. The table shows that the greater number of these were comparatively steady in price, and had a much larger number of bonds been included, the only result would have been to render the comparison of less interest and value.

In a table on page 61 will be found a comparison of the average price, about the beginning of each month, of all the bonds quoted in table No. 3 of the appendix. It hap-

pens that the points of greatest depression or advance during the year closely preceded the beginning of a month, and the recorded quotations are more complete about the beginning of each month than at intermediate periods. Hence the quotations given represent the course of the market as fairly as if a statement of quotations weekly had been attempted. The tendency of the market was upward until April, for bonds as for investment stocks. But the highest average price for bonds was reached about the 1st of April, and was $114.68. From that point to the lowest average of quotations, which appeared about the 1st of August, the decline was 5 3-4 cents on the dollar. The lowest prices were reached fully a month after the depression in June had passed, but this is mainly because most of the securities included were quoted with interest about the 1st of July, and were quoted for the first time without interest about the 1st of August. Reckoning the July quotation, it appears that the decline from the highest point during the year was less than five cents on the dollar, and the recovery by the close of the year was over two cents. After the period of speculative excitement had passed, many forced sales of bonds followed, as of investment securities, during the progress of continued liquidation. In many other cases, persons who desired to buy stocks because of their extreme depression in price found it necessary to sell bonds in order to command the money. When allowance is made for the depression which sales from such causes must have produced, it is seen that the prices of bonds were sustained throughout the year with surprisingly little change. Yet a considerable number of securities are included of roads which were either forced into bankruptcy during the year, or by the decline of earnings were compelled to pass accustomed dividends. In such cases, apprehension on the part of bond-holders was natural, and when it is considered how long a time is usually spent in reorganizing the affairs of a road, after pay-

ment of interest has once been suspended, it seems surprising that apprehension did not cause more general sales of bonds and greater changes in price than actually appear. But a comparison of this record with that of the prices of inactive stocks shows that the movement in both classes of securities was governed by substantially the same laws. In both there was a considerable advance during the first part of the year. In both there was a decline, of about the same relative importance, at the time when the condition of the stock market caused the greatest number of forced sales, or most strongly tempted the holders of bonds or investment stocks to transfer their money to the purchase of more active securities. In both classes, also, there was some recovery toward the close of the year, but in both that recovery failed to reach the level of prices attained during the first half of the year. In the light of these comparisons, it becomes difficult to believe that the changes in the prices of railway securities were due wholly or mainly to changes in the condition of the transporting business. On this point, evidence is also obtained by examining the prices of other securities not connected with the railway business.

It is natural to look first at the bonds of the United States, of the States, and of cities. Quotations of these, sixty in number, are given in table No. 4 of the appendix. An effort has been made in the selection to choose securities which could be properly quoted for a considerable term of years, and to represent as many different organizations or political authorities as possible. We are accustomed to say that the value of securities of this class depends wholly upon the public faith. This is nearly true; if a government pleases, it can pay just as long as the people can bear the necessary taxation. But it becomes no longer a question of public faith, whether a debt shall be paid or not, when a prostration of industry in any State or city is so great that the collection of revenue is materially impaired. Given an

unchanging determination to pay, any depression in trade or industry which falls short of the point at which the tax-paying power of the community is seriously impaired, does not affect the payment of interest on its outstanding debt. Thus it will be found that the securities of this class, during the year 1884, were but little affected in price. In table No. 4 of the appendix quotations are given monthly, and in the table on page 61 will be found the average price of these securities for different dates. It is to be observed, however, that the prices of the United States and other bonds were to a considerable extent affected about July 1st by the payment of interest. Yet, in spite of this fact, the depression at that point was remarkably small and it is worth noting that it was smaller in the bonds of cities than in the bonds of States or of the United States. No doubt this was mainly due to the fact that there was a more ready market for the sale of bonds of the latter classes, and consequently a greater number of sales resulted from the continued liquidation in the stock market, or from the desire of investors to take advantage of the low prices there prevailing. Thus the decline in governments, even after allowance for the payment of interest, was quite as great as in the bonds of cities. But, excepting the temporary change already mentioned, there was substantially no depression worth considering in the prices of securities of this class during the whole year. The conclusion to which the quotations point is that at no time during the year was there such prostration of trade, or such depression of industry, as to sensibly affect the power of communities to pay the accustomed taxes or to meet their obligations.

Let us next turn to the stocks of banks. The vast amount of capital invested in over 2,600 National banks, and their intimate connections with the movements of trade in all parts of the country, would render a comparison of their stocks exceedingly interesting and instructive if there were

regular quotations for all of them. But out of more than 2,600, probably less than one-tenth are anywhere regularly quoted, and in many instances the quotations are but nominal and for many consecutive months represent no actual transactions. The dealings in this class of securities, outside a few of the chief cities, are not sufficiently accurate to afford any indication of the profitableness of the banking business. If such an indication is to be found anywhere, however, it must be in the cities of New York and Boston, and the more because banks of considerable importance in both of those cities failed during the year under consideration. Although the National banks of these two cities are closely connected with the market for securities, it is believed that the quotations of the stocks of New York and Boston banks will afford a better indication of the changes during the year in bank stocks generally than any comparison of the stocks of selected banks of other cities. In table No. 5 of the appendix will be found monthly quotations of these stocks, except for the month of March for Boston banks, and in that month no change of consequence occurred. As before, the average price of these stocks at each date is given in the table on page 61. It will be observed, first, that the prices of bank stocks both at New York and at Boston advanced during the year until about first of May. In this respect, the course of these securities corresponds with the course of Government, State and city bonds, railroad bonds, and investment stocks, but contrasts sharply with the course of speculative stocks. The decline in June and July was considerable in both cities, but greater at New York, as is natural, on account of the failure of the Metropolitan Bank and others not quoted But it will be observed that a lower level of prices was reached at Boston about the first of December than in the month of panic, or in June. At New York, on the contrary, the lowest average reached during the year was about the first of July, coinciding closely with the

point at which the lowest prices for active stocks were made. From that date some recovery followed, notwithstanding the continued and great decline in the stock of the Metropolitan Bank. The average of prices at New York about the first of December was nearly two cents on the dollar higher than the average about the first of July, whereas at Boston it was a little lower. A natural explanation will be found when the prices of manufacturing stocks are reviewed. A large part of the industrial capital of New England is represented at Boston, and the material depression in manufacturing toward the close of the year undoubtedly caused many to sell banking and other securities, about that time, which they had been able to hold during the months of panic in active stocks. Considering the close connection of these securities, and of the institutions which they represent, with the speculative markets, it must be admitted that they show a creditable steadiness in price. A purchase of one share of each of these banks, in the two cities most closely connected with speculation, at the prices of January 1, 1884, would have shown May 1, an average profit of $2.75 on $100, and an average loss July 1 of only $3.30 on $100, so that the decline from the highest to the lowest point was less than 6 per cent. If there had been any such general prostration of business, outside of the speculative markets, as has been seen in other years of disaster, surely the prices of bank stocks in these two great commercial cities must have been more largely affected. Indeed, the steadiness of these prices, when the connection of the banks with speculative operations is considered, has been quoted as evidence that there is less danger from such a connection than many have believed, either to the banks, or to their customers who are engaged in legitimate business. The list of quotations, it will be observed, includes over 100 banks, of which one failed during the year. Out of the 2,660 National banks in the country, only 11 failed during the year, so that the proportion of failures to

banks in the table of quotations, namely, 1 in 100, is considerably in excess of the proportion of bank failures in 1884 to the whole number of banks throughout the country. The conclusion is clearly justified that the panic of May and June was not caused by disorder or stagnation in the general business of the country, nor by any weakness in the banks apart from their connection with speculation. At Boston, where the condition of the banks depends more on manufacturing than on speculation, prices were lower at the end of the year than in May or June. But at New York the fall in prices may well be compared with the diagram given at page 40, showing the movement of bank reserves at New York weekly during the year 1884 and in other years.

It has been stated that the New York banks started in 1884 with $10,000,000 more idle money in reserve than they had ever held at that season in any previous year. In each of the six preceding years, a sharp advance in the reserve had occurred during the month of January, never exceeding about $10,000,000, the gain in 1879. But in 1884, from January 1 to February 9, the increase in the reserve of the New York banks was over $21,000,000, and the amount then held at the latter date, $111,000,000, was larger by $23,000,000, than had been held during the first quarter of any previous year in the whole history of the banks. In every year since the resumption of specie payments, a material decrease of the reserve followed the January accumulation, and was due to the more active employment of money in preparation for the spring trade. But in 1884 the decline which began February 9, and which took out of the banks prior to April 1 about $21,000,000, left them with larger reserves than they had held at that season in any previous year. If distrust was anywhere felt, it was not on account of the general condition of the banks or of business throughout the country, but exclusively because of the rumored connection of some of the banks with speculative operations, in which it was supposed

that they had sustained serious losses. When a large outflow of gold to Europe occurred in April, and the reserves of the banks were further depleted, instead of increasing as had been usual at that season, there was still no apprehension as to the monetary situation, nor was it considered that the exports of gold justified any alarm. The correctness of these impressions was proved by subsequent events. After the outflow of gold had ceased, namely, on the 3rd of May, the banks held a surplus, above the reserve required by law, and held reserves amounting to $84,000,000, which had been exceeded at that time in the year only twice in their whole history, and then but little. Moreover the reserve began to rise at once, when the outflow of gold came to an end, and the surplus on the 10th of May amounted to about $4,500,000. The disturbance which followed, in reserves and in prices of bank stocks, was due exclusively to the connection of certain banks with speculative operations. The failure of the Marine and Metropolitan banks, and the great defalcation in the Second National, caused for a time a notable decrease in the amount of reserves held by the banks still reporting, and in place of a surplus they reported a deficit. But the diagram shows clearly that this weakness, resulting from speculative connections only, was quickly followed by a wholly unprecedented accumulation of money at this point. As soon as the banks had recovered from the immediate pressure of panic, the reserves mounted to $88,000,000 by the first week in July, a point never exceeded at that date but once; to $107,000,000, by the last week in July; and later in the year, notwithstanding all demands on account of the movement of grain, to $125,000,000, about $26,000,000 more than they had ever held in any previous year. It was not possible to doubt that this tendency toward the accumulation of unemployed money had been in operation all the year. Except for a short time during the weeks of panic, the banks had at command more money than they could possibly employ legiti-

mately, and more money by far than had ever been accumulated at any previous time in their history. Whatever other cause may be assigned for the depression in 1884, it can by no rational being be attributed either to scarcity of money in the country, or to scarcity of money in the vaults of New York banks, or to unsoundness of those banks generally. With few exceptions, the banking system was sound, and confidence in it was unshaken. The enormous accumulation of money, which supplied fuel to the fire of speculation, whether in any respect a cause of the panic or not, was at all events indisputable proof that the panic was not caused by distrust of the banking system in the chief commercial cities.

There remains to be considered a very important class of securities. According to prevalent opinions, the shrinkage in railroad values during the year 1884 was in large measure due to depression in manufacturing industry. That this was to some extent the fact is undeniable, for in the coal producing and iron manufacturing regions the decrease in production of iron had caused a decrease in traffic But this change in iron and coal mining, and in iron manufacture, was rather an effect than a cause of the depreciation in railroad securities. It was distinctly due to the stoppage of railroad building, which resulted from inability to sell bonds and stocks, and that inability will presently be traced to the operations of the railroads themselves. As respects other branches of manufacture, important evidence may be obtained from the prices of manufacturing stocks at Boston. The securities there quoted embrace not only woolen and cotton mills but other works of considerable representative importance, and give a fair idea of the course of manufacturing stocks throughout the country. In table No. 6 of the appendix, the prices of all stocks commonly quoted at Boston, with a few that appear to have been quoted only at New York, are given for the year 1884 as

fully as possible. But quotations have been omitted of a few new stocks which were not quoted during the earlier years embraced in this review. This comparison is in some respects peculiarly instructive. The prices quoted at the beginning of the year in most cases included the dividend then earned but not yet paid. The considerable decline in price, which appears February 1, is mainly if not wholly due to the payment of these dividends. A small decline in February is readily explained by the state of business, which was unusually interrupted during the month by storms and by the diminishing prospect of activity in spring trade. But a recovery of the same amount per share followed from March 1st to April 1st, and the decline in April was less than the advance in March. Generally, therefore, it may be said that the prices of manufacturing stocks were maintained with scarcely any change worthy of notice, after the payment of dividends in January, until the 1st of May. If there had been any serious prostration in manufacturing industry at that time, it is probable that the price of stocks at Boston would not have been so well maintained. Here it is natural to ask how a prostration in manufactures can be said to have caused any depression in railroad stocks, at a time when it did not cause any depression in manufacturing stocks. Thus there appears another convincing proof that in its important movements in April and May, 1884, the stock market was governed by considerations and influences quite apart from the general course of trade or of industry. In theory, that market is a sensitive barometer, which quickly answers to any improvement or depression in the business of the country. But in fact, during the early part of the year 1884, that market was in such a condition that it did not obey these influences, but was artificially forced up or down, without regard to the state of business. For this reason, if for no other, it was both false in its indications and dangerous to those who had to do with it.

The panic came in May, before there had been any significant change in the course of manufacturing stocks. Afterwards some decline in those stocks necessarily resulted, as in bank stocks, bonds and investment stocks. Many persons who held manufacturing stocks were also interested in railroads, and were either forced to realize as best they could, or were induced by the sudden and apparently excessive decline in the stock market to invest more largely than before in railway securities, or to sustain stocks in which they already had large investments. All these causes operated also in June, so that prices were lower about July 1 than at any previous time during the year, but the decline in manufacturing stocks during May and June was not at all proportioned to the decline in railway securities. About one quarter of the entire value of active stocks January 1st was lost in the two months between May 1st and July 1st, but only about 4.1 per cent of the entire value of manufacturing stocks January 1st was lost during the same two months. It would not be unreasonable to say that the mere sympathy with the panic in railroad stocks, the decline due to forced sales or to the personal connection of individuals with both interests, would fully account for all the depression that appeared in manufacturing stocks during these two months. In fact, the depression was relatively less than in the investment stocks during the same time, and but little greater than the decline in railroad bonds. In the following table are shown the average prices about the first of each month in 1884, of each class of securities thus far considered. In the first column is given the average price of sixty active stocks, excepting that for June 1 the average of May 24 is given, and for July 1 the average for June 27th. In the second column appear the average prices of forty investment or inactive stocks, and in the third column the average of sixty railroad bonds. In the fourth column appear the average prices of thirty-eight city bonds, which, with the prices of

eighteen bonds of States and of the District of Columbia shown in the eighth column, and the prices of three United States bonds shown in the ninth column, appear in table number 4 of the appendix. In the fifth column are shown the average prices of fifty manufacturing stocks; in the sixth the average prices of forty New York bank stocks, and in the seventh the average prices of fifty-three Boston bank stocks. Thus this table presents a complete statement of the course of all classes of securities, 363 in number, and the contrast between the changes of price in the different classes will be found exceedingly instructive :

	Active Stocks.	Invest Stocks.	R. R. Bonds.	City Bonds.	Manuf. Stocks.	N. Y. Bank Stocks.	Boston Bank Stocks.	State Bonds.	U. S. Bonds.
Jan...	62.40	135.98	113.32	111.94	125.80	194.56	122.97	89.95	124.45
Feb...	61.93	135.96	113.61	112.25	121.42	198.06	124.64	91.37	125.17
Mar...	60.99	136.40	114.38	112.81	120.16	199.41	....	91.48	125.17
Apr...	59.68	137.69	114.68	112.97	121.48	197.28	124.27	91.13	125.37
May ..	56.33	137.94	114.00	113.91	120.32	200.70	125.94	91.62	124.87
June..	48.76	134.32	112.41	112.46	117.35	187.00	124.62	89.70	120.66
July ..	41.54	130.12	109.87	111.35	115.19	181.24	123.21	85.55	120.33
Aug...	52.56	132.79	108.95	110.76	111.70	185.46	121.91	87.24	122.25
Sep...	51.34	133.26	111.66	111.31	111.59	185.94	122.45	86.96	122.33
Oct...	48.86	132.91	111.48	110.99	113.15	183.21	121.35	86.59	121.75
Nov...	45.85	132.00	111.11	111.22	110.16	183.85	123.13	86.33	122.71
Dec...	47.61	132.88	112.02	111.51	108.67	183.30	121.48	88.30	123.92
Jan...	44.56	132.09	112.38	111.70	110.98	183.87	122.36	88.85	122.33

During the months of January, February, March and April, every class of securities excepting the active railroad and manufacturing stocks advanced in price above the level of January 1st. In the months of May and June, Boston bank stocks and city bonds declined 2.2 per cent of their original price ; United States bonds declined 3.6 per cent, and railroad bonds 3.7 per cent; manufacturing stocks declined 4.1 per cent, investment stocks 5.8 per cent, and New York banks stocks 10.0 per cent. But for the failures of banks in New York, because of direct connection with speculation, the decline in that class of securities would have

been small. Meanwhile, during the same period the speculative stocks declined 23.8 per cent. Compared with other securities, therefore, the manufacturing stocks were almost as steady as if the prosperity of manufactures and of industry generally had been entirely undiminished throughout the first half of the year. This was not quite the fact. In some respects, the outlook for manufacturing interests had become more unsatisfactory before the first of July. The building of railroads had been checked, and the sales of bonds upon which some new enterprises had relied had been arrested. On the other hand there was the certainty of large crops, and a prospect that the farmers, if their labor was rewarded by sales at fair prices, would be both able and disposed to purchase largely of manufactured products.

It is at this point that the record of manufacturing stocks becomes peculiarly instructive. While the active railway stocks were jumping upward in July, as if all the past decline had been utterly foolish and senseless, and the country was on the high road to prosperity again, the average price of mannfacturing stocks declined more in July than it had in May or June. In August, moreover, there was no improvement. After a slight improvement in September, the average of prices went lower still in October, so that by the first of November lower prices were made than at any previous date during the year. And again, notwithstanding the advance in the price of speculative stocks in November, due in large measure, as has been shown, to speculative influences, the manufacturing stocks continued to decline so that the average of quotations for December first is the lowest in the record for the year. If full quotations could be obtained for the intermediate days, it is probable that the lowest prices of the year for these stocks, as for many others, would be found to have been made about the middle of December. It is well known that the general condition of business throughout the country corresponded closely with

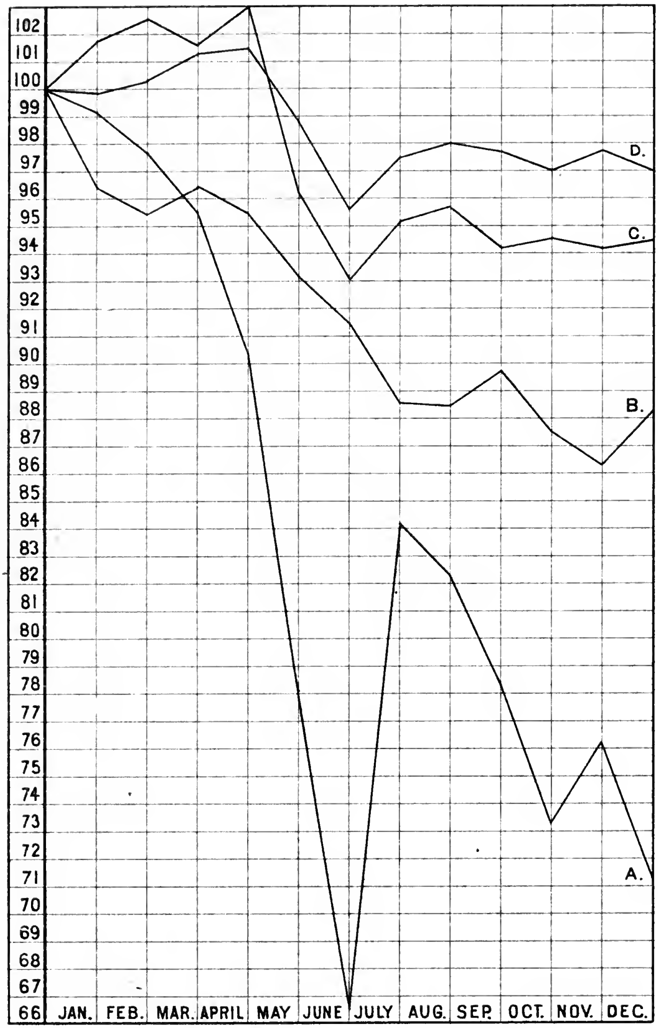
the course of these stocks. During the Presidential campaign there was weary waiting, followed by sharp depression afterwards, when it was seen that the stagnation had been due, not as many had said and many others had believed entirely to political causes, but in large measure to other influences. When the hopes of recovery after the political excitement had passed, or as a consequence of this or that political decision, were all disappointed, and men were forced to realize that the most important causes of disorder still remained and were not yet in the way to be removed, the pressure became severe. Many establishments closed. Many others cut down the number of hands or the number of hours' work, and many more reduced wages. It was estimated by a financial journal that the average reduction of wages was about 10 per cent between the Presidential election and the close of the year, and that over 300,000 persons were out of employment near the end of the year, most of whom had been fully employed when speculative stocks were at their lowest prices.

In the light of this comparison, it appears clear that the rise in railroad stocks during the fall was an unwarranted attempt to resist the general tendency toward lower prices, as the legitimate result of less active and less prosperous business. A moderate recovery from the point of extreme depression might have been sustained. But the advance in the prices of active stocks in July averaged 17 7 per cent of their price at the beginning of the year, while investment stocks advanced only 2.3 per cent, bonds only 2.4 per cent, bank stocks only 2.5 per cent, and manufacturing stocks declined. Evidently the market for speculative securities had become false and deceptive. Its movement was without reason, and in defiance of the facts. Its advance in July was followed by a stagnation in August, and by decline in September, and by greater decline in October, because the artificial support gradually wore out. The still greater de-

cline in November and December plainly indicated a collapse of the forces by which in July the prices had been so unreasonably advanced, and during the fall so desperately maintained, in disregard of legitimate influences. The contrast between the movements of different classes of securities can in no other way be more clearly shown than by the table and diagram which follow. In the table, which corresponds with that of the average prices of different classes of stocks on page 61, the proportion of the average price for each class about the beginning of each month to the average at the beginning of the year is shown; thus, if an equal amount had been invested at the beginning of the year in each of the sixty railroad bonds, every $100 so invested would have been worth $101.20 at the prices of April 1, but only $96.10 at the prices of August 1st :

	Active Stocks.	Invest Stocks.	R. R. Bonds.	City Bonds.	Manuf. Stocks.	N. Y. Bank Stocks.	Boston Bank Stocks.	State Bonds.	U. S. Bonds.
Jan. 1.	100	100	100	100	100	100	100	100	100
Feb. 1.	99.2	99.9	100.3	100.3	96.5	101.8	101.3	161.6	100.6
Mar. 1.	97.7	100.3	100.9	100.8	95.5	102.5	....	101.7	106.6
Apr. 1.	93.6	101.3	101.2	100.9	96.5	101.4	101.1	101.3	100.7
May 1.	90.3	101.5	100.6	101.7	95.6	103.1	102.4	101.8	100.3
June 1.	78.1	98.8	99.2	100.4	93.2	96.1	101.7	99.7	97.0
July 1.	66.5	95.7	96.9	99.5	91.5	93.1	100.2	95.1	96.7
Aug. 1.	84.2	97.6	96.1	99.0	88.7	95.3	99.1	97.0	98.0
Sep. 1.	82.3	98.0	98.5	99.5	88.6	95.6	99.6	96.6	98.0
Oct. 1.	78.3	97.7	98.4	99.2	89.9	94.1	98.7	96.2	97.9
Nov. 1.	73.4	97.0	98.5	99.4	87.5	94.5	100.3	95.9	98.6
Dec. 1.	76.3	97.7	98.9	99.6	86.4	94.2	98.8	98.1	99.6
Jan. 1.	71.4	97.0	99.1	99.8	88.2	94.5	99.5	98.7	98.0

The relation of these figures will be more readily perceived by the diagram opposite this page, in which each line represents the changes in the average prices of one class of securities in proportion to the average price of that class at the beginning of the year. Thus it shows that, out of every $100 invested in active stocks at the prices of January first, $33.50 were lost July 1st. Out of every $100



102
101
100
99
98
97
96
95
94
93
92
91
90
89
88
87
86
85
84
83
82
81
80
79
78
77
76
75
74
73
72
71
70
69
68
67
66
JAN.
FEB.
MAR.
APRIL
MAY
JUNE
JULY
AUG.
SEP.
OCT.
NOV.
DEC.
D.
C.
B.
A.

invested in manufacturing stocks, at the prices of January 1st, $8.50 had been lost, and in the stocks of New York banks $6.90. But out of $100 put into the investment stocks, at the prices of January first, the loss at the lowest point had been only $4.30. In the diagram, for the sake of clearness, the almost unvarying lines representing the prices of United States, State, city, and railroad bonds are omitted; in railroad bonds the loss at the lowest point was only $3.10 on an investment of $100; in United States bonds only $3.30, and in the bonds of cities only 50 cents. The average quotation of active stocks, as compared with their quotation January 1st, is shown by the line marked "A." In like manner the course of manufacturing stocks, with reference to their price at the beginning of the year, is shown by the line marked "B;" the price of New York bank stocks, in the same manner, by the line marked "C," and the price of investment stocks by the line marked "D." Taking into consideration the effect of interest or dividend periods, it is easy to trace through the year the wide variation in the influences which affected the different classes of securities. The want of correspondence between the line representing the course of speculative stocks and the other lines in the diagram, and the still sharper contrast between the course of those stocks and the course of the bonds and Boston bank stocks not here represented, directs attention clearly to the fact that the course of the market for speculative stocks was not governed by the influences which in the main controlled the prices of other securities. For a time, it is true, the stocks of the New York banks showed a disposition to sympathize with the speculative stocks, in which it was feared the fate of not a few banks had become inextricably involved. But when the immediate effect of the panic had passed, these and other securities were clearly governed by influences to which the market for speculative stocks did not respond. While a tremendous advance was made in the

active stocks, which it was afterwards found impossible to sustain, the other securities remained comparatively steady, while the manufacturing stocks continued to decline toward the lower level reached near the close of the year, in correspondence with the general depression of industry.

Certain causes of this unsoundness of the market for securities already loom up and assume great importance, as the phenomena of the year 1884 alone are examined. But before an attempt is made to define and discuss them, it is necessary to ascertain whether the market for speculative stocks differed so widely in the previous years as in 1884 from the market for other securities. If it can first be ascertained when the prices of active stocks ceased to represent true values and became fictitious and false, there will be less difficulty in assigning to different causes their relative importance and in defining them with precision.

IV.

THE TIDES OF TRADE.—PANIC OF 1873.

As every year is the child and heir of all previous years, so the year 1884 can be thoroughly understood only in the light of its inherited characteristics, so to speak. The virtues and the vices of the child are never more clearly traceable to parents than the peculiarities of the year 1884 to the events of the preceding years. Standing alone, that year would be an insoluble enigma. Great crops failed to bring expected prosperity. With 100,000,000 bushels of wheat lying in granaries and elevators, and carried by bankers and dealers, we sent abroad $20,000,000 in gold during the month of April to pay for products imported. With manufacturing labor well employed for more than half the year, and stores crowded with goods, and barns bursting with grain, the farmers failed to sell their grain, and the merchants failed to sell their goods, and the manufacturers had to close their works. The year 1883 had been one of general shrinkage in business. Profits had been cut down during that year in nearly every branch of industry and trade. Increasing competition between the railroads had caused a growing distrust of railway securities. Some severe disasters had occurred during that year, particularly in speculative markets. In cotton, Morris Ranger had collapsed, and dragged down with him a score of operators. In provisions, McGeogh had failed for several millions, and his failure involved that of many others. In grain, the speculation had been violent and to many disastrous. The King of Coffee had gone down, as well as the Lord of Lard and the Monarch of Leather. For such a carnival of reckless speculation, no student of financial records or of economic laws needs to be told that there must have been some unusual and powerful causes. But

for those causes one is compelled to look back still farther. Thus we are brought to the year 1881, with its enormous inflation of prices, and development of the railway system, and growth of speculation and of the facilities by which speculation is enhanced. The state of things during that year, in turn, is soon found to be the result of the conditions under which the resumption of specie payments was prepared, prior to January 1st, 1879. And finally, for the extraordinary prostration of business in 1877 and 1878, and the low prices then prevailing, it is necessary to seek the causes in the industrial and legislative history of the country prior to the panic of 1873.

Business moves in great curves, not unlike the orbits of heavenly bodies. The astronomer who can fix the position of one of these bodies, at several points in its orbit, can calculate from them the nature and extent of the orbit in which that body moves, and thus measure with great precision the forces to which it is subjected, and the course which it has pursued in intermediate times and will pursue hereafter. With less of scientific exactness, but after the same general method, the student of business finds it necessary to take observations at widely separated points, in order to calculate the course in which industries and commerce are moving. It is especially useful if he is able to select points which include the whole orbit, so to speak; periods of great depression, and the succeeding periods of maximum activity and prosperity. In the United States it happens that this can be done by a comparison of events for the past thirteen years. The speculative period which preceded the collapse of 1873 did not reach its culmination until 1872, when the enormous imports, the enormous productions of industry in various branches, the high prices prevailing, the expansion of currency, the speculative activity, and the boundless hope, had not yet met any serious reaction. From that point, as is well known, a course of continuing disaster lasted until

1877 or 1878. In some branches of business, it will be found that the period of greatest depression was passed in 1877. In others, and apparently the larger number, the point of greatest depression was not reached until the latter part of the year 1878, and the fact that in that year the prices of some important products were lower and the number of failures was far greater than in any previous year of the country's history, leads naturally to the conclusion that, on the whole, the point of least prosperity and of lowest prices for many years may be sought during that year with success. Then began another period of improvement and of speculation, which reached its height in 1881 or 1882, and this in turn was followed by the downward movement, of which the collapse in 1884 was an essential part. If we may consider the world of business as a comet, sweeping swiftly around the sun at its perihelion in 1872 and again in 1881, enjoying then the greatest heat and light and the most surprising rapidity of motion, its course may thence be traced as it starts off to the distant regions of cold and darkness, with ever-retarding velocity as the momentum fades away, until at last stagnation comes, and presently the business world turns slowly backward toward the sun of prosperity again.

To pursue this examination with ascertained facts for a guide, let us first compare the prices of active securities for each of the thirteen years, 1872–1884 inclusive. It will not be found necessary to give attention to all the changes of each year. If the precise points can be fixed at which the general change of direction began, we shall find that after an upward movement commenced the prices of securities advanced so far in harmony that the average of their highest points during each year is ever higher than that of the preceding year, and the average of their lowest points during each year is also higher than that of the previous year. Thus, if the aggregate cost of sixty active stocks, at the

highest prices reached by them at any time during a certain year, is $6,000, so that the average of their highest prices is $100, this maximum is not reached by the average price of those stocks at any one time during that year. And again, if the aggregate cost of the same stocks, at the lowest prices touched by them at any time during the year, be $4,200, so that the average of their lowest prices is $70, this minimum is not reached by the average price of those stocks at any one time during that year. Whatever wild fluctuations may have occurred, however wide may have been the changes in the prices of particular stocks, the average price of the whole must at all times during the year have moved within the limit thus fixed, never exceeding $100 in any rise, nor falling below $70 in any decline. In fact, as it never happens that all securities reach their highest or their lowest points during a given year on the same day, the average price at any point of time during the year is rarely near the average of the highest or of the lowest prices of the same stocks. Hence if it be found that the range of speculation thus bounded, so to speak, was in one year between 30 and 45, and in the next year between 40 and 55, and in the next between 50 and 65, and in the next between 60 and 75, it is unnecessary to search any of these years between the first and the last for a change in the general tendency thus defined.

In table No. 7 of the appendix, the highest and lowest prices of sixty active railway stocks are compared for the thirteen years, 1872–1884 inclusive. The aggregate and the average of the highest and of the lowest prices attained by all the stocks included are obtained from this table for each year, and the table also gives their prices at the close of each year. The following shows for each of the thirteen years the average of the highest prices reached at any time in that year by sixty stocks, the average of the lowest prices

reached at any time within the year by the same stocks, and the average of their closing prices:

Year.	Highest.	Lowest.	Closing.
1872	76.57	57.57	66.40
1873	69.61	40.83	50.89
1874	58.79	41.79	47.92
1875	53.50	36.14	40.67
1876	47.28	27.58	29.63
1877	36.33	20.58	29.70
1878	37.77	25.51	32.99
1879	67.86	33.85	58.68
1880	87.04	51.74	78.92
1881	101.54	69.93	79.92
1881 (New)	99.80	71.86	81.99
1882	94.85	63.77	72.27
1883	79.86	57.58	61.28
1884	66.28	38.68	44.56

Here there is traced with perfect clearness a downward movement for 6 years ending in 1877; an upward movement for 4 years ending in 1881, and a downward movement for 3 years extending from 1881 to the end of the record. It is entirely clear that no general change in direction need be sought excepting in the years 1872, 1877 or 1878 and 1881, —for it has already been shown that the upward movement about July 1, 1884, has not been sustained, and the year left the market in an uncertain state without indication that a definite recovery had begun. But there is needed first some explanation respecting the selection of stocks, and the two sets of averages given for 1881. It has not been found possible to quote the same securities, in such number as is desirable, for the entire period under consideration. Had a smaller number been selected, those of greatest activity and importance at certain points, upon which the character of the market then largely depended, must have been omitted. Thus the tone of the market in 1884 would not be satisfactorily shown, if only those stocks should be compared of which quotations could also be given for the year 1872. Nor

would the essential elements of the speculation in 1872 be correctly represeted, if the comparison for that year were confined to the stocks which could also be quoted for the year 1884. The following changes have therefore been made. During the period of advance after 1878 the new stocks which then came into favor and importance are from time to time substituted for those which passed out of notice or out of existence. But, in order that this transition may not vitiate the general comparison of prices prior to and after the years 1878-1881, the changes are made at points where the aggregate market value of the old stocks dropped is nearly the same as the aggregate market value of the new stocks taken up. Thus at the end of 1878 there are dropped the Boston, Hartford and Erie, which had ceased to have any market value, the Rutland, common and preferred, which had nearly reached the same position, the Catawissa, which was quoted only in Philadelphia and rarely there, the Cheshire preferred, which was rarely quoted even at Boston, the Cincinnati, Hamilton and Dayton, which was rarely quoted even at Cincinnati, the Cincinnati, Sandusky and Cleveland, which had become nearly worthless, the East Tennessee, Virginia and Georgia, and the Rome, Watertown and Ogdensburg, which at that time passed out of sight for some years, the Maryland Coal and the Spring Mountain Coal stocks, which had become too rarely quoted to be of any service, and the Ohio Central which had for some time been quoted at Baltimore only. In place of the preferred stock of the old Toledo, Wabash and Western, the new Wabash purchasing receipts were quoted, and afterwards the stock of the new Wabash company. In place of the old Toledo, Wabash and Western common stock there was quoted the stock of the St. Louis, Kansas City and Northern, which at that time began to be active in the market, and was subsequently exchanged dollar for dollar for the common stock of the Wabash, St. Louis and Pacific.

The new stocks taken up from this point, and those dropped, with the value or latest quotations of each at the close of the year 1878, are shown in the following statement:

Old Stocks Dropped.		New Stocks Included.	
Boston, Hartford & Erie..	——	Burl., Cedar Rapids & No.	$23 00
Catawissa................	$6 00	Canada Southern.........	45 50
Cheshire preferred.......	25 00	Denver & Rio Grande.....	11 75
Cin., Hamilton & Dayton.	15 00	Houston & Texas Central.	10 00
Cin., Sand. & Cleveland..	4 25	Long Island.............	12 00
E. Tenn., Va. & Ga......	38 00	Nash.,Chattanooga & St.L.	25 00
Rome, Watertown & Ogd.	11 00	Northern Pacific.........	5 00
Rutland..................	2 00	" " preferred.	27 37
" preferred.........	6 75	Richmond & Danville.....	4 00
Ohio Central.............	23 50	San Francisco............	3 87
Maryland Coal...........	10 00	" " preferred...	5 25
Spring Mountain Coal....	50 00	" " first pref....	11 75
Total.............	$191 50	Total..............	$184 50

It appears from this comparison that at the point of change the new stocks taken up were worth $184 50, while the old stocks dropped were worth $191 50. Substantially no change in the average value of the whole number of stocks embraced was therefore made by this substitution. Again, at the end of the year 1879 there are dropped the Kansas Pacific, which was presently absorbed, the New Jersey Southern which had become bankrupt, the Missouri Pacific, which changed ownership and ceased to be quoted, and the Wabash stock, which disappeared in the organization of the new Wabash, St. Louis and Pacific. In place of these, the Chesapeake and Ohio first preferred, the Indianapolis, Bloomington and Western, and the Chicago, Minneapolis and Omaha, common and preferred, are included. But for the first part of the year the Omaha stocks were not quoted, and the quotations given are those of the St. Paul and Sioux City, common and preferred, which were during the year exchanged at par for the Omaha stocks. The value of the new stocks taken up was $168 25, while the value of the old stocks dropped was $166 25. Thus there was practi-

cally no change made in the aggregate or average value by this substitution. Finally for 1881 two tables are given in the appendix. The first includes the stocks previously quoted; the second drops thirteen of these, and includes thirteen others which had become more important. The following shows the highest, the lowest, and the closing prices of the stocks dropped, and of the new stocks taken up:

OLD STOCKS DROPPED.

	Lowest.		Highest.		Closing.
Atchison, Topeka & S. F.	$92 00	Dec.....	$154 25	Jan.....	$94 75
Canton.................	53 00	Jan.....	73 25	June....	61 00
Consolidation...........	30 00	Oct. 15.	43 00	Jan. 15.	39 75
Col., Chicago & Indiana C.	18 75	Aug. 20.	32 87	May 20.	21 25
Dubuque & Sioux City...	76 50	Apr. 8..	88 00	June 14.	83 00
Northern Central........	89 00	Jan.....	115 50	June....	102 00
Philadelphia & Erie......	38 75	Dec.....	59 50	March..	40 00
Quicksilver..............	12 00	Dec. 23.	21 25	July 7..	13 00
" preferred....	53 00	Jan. 5..	75 50	July 7..	59 00
St. L., Alton & T. H. pref.	85 00	Dec. 28.	143 75	May 25.	85 25
Vermont & Canada......	11 25	Jan.....	20 00	July....	15 00
Hannibal & St. Joseph...	44 75	Jan. 4..	350 00	Sep. 16.	95 00
" " pref.	94 00	Feb. 26.	121 00	Sep. 17.	113 75
Total of 60 includ'g these..	$4,195 87		$6,092 50		$4795 50
Average of these 60......	69 93		101 54		79 92

NEW STOCKS INCLUDED AFTER 1881.

	Lowest.	Highest.	Closing.
Central Pacific.....................	$80 50	$102 87	$92 00
Lake Erie & Western..............	32 00	65 75	34 25
Erie, Second Consols..............	94 50	108 75	100 00
Ontario & Western	25 62	43 50	27 50
Norfolk & Western, pref...........	53 00	70 00	57 75
Ohio Central.......................	21 00	37 87	23 37
Oregon Transcontinental...........	64 00	83 00	75 75
Oregon R. & Navigation...........	134 00	190 00	134 00
Richmond & Alleghany............	35 00	80 00	41 00
Richmond & West Point...........	122 00	174 50	174 50
Rochester & Pittsburg.............	22 00	50 00	25 50
St. P., Minn. & Manitoba..........	88 50	113 75	112 50
Texas Pacific.......................	41 50	73 62	48 50
Total of 60 including these..........	$4,311 50	$5,988 25	$4,919 37
Average of 60 including these.......	71 86	99 80	81 99

It will be seen that the "corner" in Hannibal & St. Joseph common caused the aggregate price of the old stocks, at their highest points in 1881, to exceed the aggregate price of the new stocks which are afterwards included. But at the close of the year, and in the lowest prices of the year, the aggregate of the new stocks taken up was a little higher than that of the old stocks dropped. The new stocks were far more active in speculation than the old, both in 1881 and in subsequent years, and at some important points in a measure controlled the market. It is therefore necessary to include them, though by so doing the general average of prices is raised about 2 cents on the dollar above the average of the old list. From this time to the close of the record, the new list is quoted without change. Thus it comes to pass that from 1872 to 1878 inclusive, during the entire period of declining prices, the same sixty stocks are quoted each year. And again, during the second period of decline, 1881-1884 inclusive, the same sixty stocks are quoted each year. But the second list is not in all stocks indentical with the first.

Having thus ascertained the limits within which speculation was confined during each of the years under consideration, we proceed to reach more precise knowledge as to the movements in the critical or decisive years, when the market changed its general course. For this purpose prices have been examined, week by week, for the years 1872, 1873, 1877, 1878, 1881, 1882, 1883, and 1884. The tables in the appendix present only as much of the results as are found important. In those tables monthly quotations only are given, because it is found that the range of prices for the year is in each case as satisfactorily shown by prices about the first of each month as by more frequent quotations. Beginning then with the table which shows the prices of speculative stocks about the first of each month in 1872, it appears that the average of sixty active stocks at the beginning of the year was $63 57. By the end of January the

average had risen to $64 45. But in the month of February the money market began to harden, and during that month no advance in quotations was made; the average about the close of the month was $64 43. In March and April the money market was excessively stringent, 7 per cent being often the lowest rate quoted on call loans, while about the first of March and for two weeks during the middle of that month as much as one-sixteenth of one per cent per day was paid for the use of money, and during the first two weeks of April as much as one-eighth of one per cent per day. Undoubtedly the stringency was in some measure due to the activity of speculation in stocks. March, 1872, will be remembered as the eventful month which witnessed the revolution in the Erie stock, the overthrow of the old board of directors, and the resignation of Jay Gould as President. In the latter part of the month the transactions in that stock were of enormous magnitude, and whereas its price during the first two months of the year had ranged between 30 and 38½, it rose in March to 67½, in April to 72, and in May to 75⅞. The speculation in this and other kindred securities affected the whole market, and the average price of the sixty active stocks at the close of March had risen to $68 59. In the month of April a still farther advance was made, though the upward movement began to show signs of weariness. At the close of the month the average price of the sixty active stocks was $69 03, the highest point reached during that year and during the entire period of 8 years prior to 1880. In the next month prices slightly declined, the average reaching $67 76 near the close of the month. In June there was an enormous speculation in Pacific Mail, of which the sales in that one month were many times greater than the entire amount of its capital. The annual election of the company, which was contested, and the increase by Congress of the subsidy paid by the Government to $1,000,-000, with a law for the reduction of the capital from

$20,000,000 to $10,000,000, were important influences in the speculation. Yet the general range of prices did not advance during the month, and the average at the close was $67 27. In the month of July the tendency to reaction was clearly shown, though the prevailing opinion at that time and much later was that the reaction was but temporary, and that a new and greater advance in prices was presently to be witnessed. At the close of the month the average was only $66 26, and in August the expected recovery still failed to appear, and the closing average was only $65 62. In the month of September the market was greatly excited by a desperate speculation in Erie stocks and in gold. The Erie stocks had been made very scarce, and a leading speculator had virtually "cornered" a clique which had sold the stock short to a very large amount. In order to compel him to sell, money was made scarce, and at the same time the speculation in gold was made exceedingly active The 17th of September is remembered as the day of "the three corners," for money on that day commanded five-eighths of a cent per day interest, Erie stock loaned at 2¼ per cent for one day's use, and gold was loaned at five-eighths of one per cent per day. But the natural result of all this artificial movement was a decline in the general average of prices, which reached $63 87 about the close of that month. In 5 months, therefore, the result of violent speculation, embracing not only the stock market but the gold and the money market also, had been a decline averaging $5 16 per share. In the month of October there was some recovery and it was believed that the market had at last started on an upward movement, which was to be long continued ; the closing prices averaged $66 25. But in the month of November stocks were comparatively dull until the Boston fire, which led to general apprehension of a serious decline, such as had followed the great fire at Chicago. On Monday the 11th there was a sharp depression, but prices speedily recovered, and the mar-

ket continued dull until about the 20th when the famous corner in Northwest common was disclosed. During the year that stock had at no time sold above 85¼ until this movement began, but it rose to 95 on Wednesday the 20th, and touched 230 in purchases to cover contracts on Saturday the 23rd. But it immediately afterward collapsed to 85, about its old price. The result of the speculation in that month was a decline of more than 2 cents on the dollar in the average price of stocks, which reached $64 16 at the end of the month. In December a better tone appeared; the Erie was greatly strengthened by the restitution of about $9,000,000 by Jay Gould in settlement of suits against him, and the average of the active stocks rose at the close of the year to $66 40. Thus it appears that the expectations which had been entertained throughout the year, after the first reaction in May, were constantly disappointed, and that the level of prices reached about April 30 was not touched again during the year. On the other hand, notwithstanding great stringency in money at several periods during the year, and great activity in speculation, with events like the Boston fire to arouse the apprehension of holders, prices at no time declined more than about $5 00 per share from the highest point.

The year 1873, in which the great panic occurred, opened with a hopeful feeling. There was an abundance of currency, and National bank notes accumulated in great volume at New York, and the money market became exceptionally easy. After about the middle of January some disappointment appeared because the general advance in the prices of railroad stocks, which had been commonly anticipated, did not occur, and a fear of serious commercial disaster found occasional expression in the journals of that day. This apprehension had indeed a sufficient basis in the extraordinary inflation of commercial credits, and in the unreasonable activity of speculation, but it was not generally believed that

the fears expressed were well founded. By the end of the month of January the average price of stocks was still only $66 39, having risen scarcely at all during the month. Before the close of that month, moreover, the extraordinary stringency in money began, which continued more than three months, so that from the last week of January until early in May money on call commanded in addition to the legal interest a premium which ranged from a thirty-second of one per cent per day to one per cent per day. This great pressure in the money market, and the operations of a remarkably powerful clique of speculators led by Mr. Vanderbilt, had a controlling influence in the market during all the early part of the year. Thus in February a "corner" in Western Union stocks caused an advance from 83½ to 94½; on the other hand, during the same month rumors of the probable failure of Mr. Stockwell caused a decline in Pacific Mail from 76⅞ to 55½, and the market closed with a lower average of prices, namely $65 24, than at the end of January. In March, again, the stringency in the money market continued and became still more severe. Every week as much as 1-16th per day in addition to the regular rate of interest was obtained for money, and at the close of the month brokers paid three-quarters of one per cent, and even in some instances one per cent a day for loans on call. The failure of the Bulls-Head bank and a decision of court which extinguished the hopes of holders of Boston, Hartford and Erie, were among the disappointing features of the month, and at its close the average of prices had again declined to $63 43. In the month of April money became somewhat less stringent, but the effect of the prolonged pressure and of the violent speculation in the stock market was felt in the failures of the Atlantic Bank, whose cashier had been speculating, and of several reputable firms. Again in May, though money became easy, the apprehension of failures increased, and stocks declined because many holders who had resisted the

pressure during the long period of monetary stringency gave way to disappointment when they found that the expected advance did not come. Another break in Pacific Mail was caused by new rumors of expected failure, and a sharp attack upon the Union Pacific depressed the price of that stock to 25¼. At the close of the month the average of 60 stocks had fallen to $61 91. In the month of June, though the ease in the money market continued, the stock market became still weaker and exceedingly dull, and it was noticed that the public had left the speculation wholly to the cliques which were controlling different stocks. But the death of Mr. Clark, President of the Lake Shore and the Union Pacific, caused a sharp decline in the prices of those stocks and materially weakened the Vanderbilt combination, which had for months been the most powerful ever seen in the street. Pacific Mail also declined, and many of the investment stocks were offered for sale at low figures. Nevertheless the average of prices at the close of the first half of the year was still $60 51, so that the decline from the beginning of the year had been only $5 80 per share, and from the highest point in 1872 only $8 52. It was plain that the great operators, who still controlled the market and resisted any decline with extraordinary power, were unable to find purchasers for their securities if they desired, for the public had practically withdrawn from the market.

An important influence in the market at this time, causing much distrust among the holders of securities and preventing the sale of new securities upon which too many roads had relied for necessary supplies of funds, was the "Granger" legislation in Western States. The laws so named were regarded not unreasonably as threatening a virtual confiscation of railway property, under the mistaken idea that the public interest could best be served by placing the corporations under rigid legislative control. It is doubtless a mistake to say, as some have said, that the panic in

the fall of 1883 was wholly caused by this kind of legislation. As will presently appear, commercial credits were so greatly inflated that a collapse could hardly have been long prevented in any case, but without doubt the legislation in regard to railroad companies had a more immediate influence upon the price of securities than any other cause, and thus both hastened and greatly intensified the disaster. It was in fact the only cause of bankruptcy in many important cases and the main cause of disaster at that time to most of the transporting companies. But behind it there were other causes which, had the transporting business been left without interference, must soon have brought about serious commercial disorder. Thus, although the money market was remarkably easy in July, and assurances were given that the Secretary would do whatever he could to prevent stringency during the fall, there was still a prevailing apprehension. But the succession of Mr Vanderbilt and his associates to the control of Lake Shore, and the report that a large stock dividend would soon be made in Western Union, with another "corner" in Erie stock, were among the influences used to lift the market during that month in the hope that investors might at last be induced to purchase largely. Nevertheless the advance in the average of prices was only one dollar per share during the month.

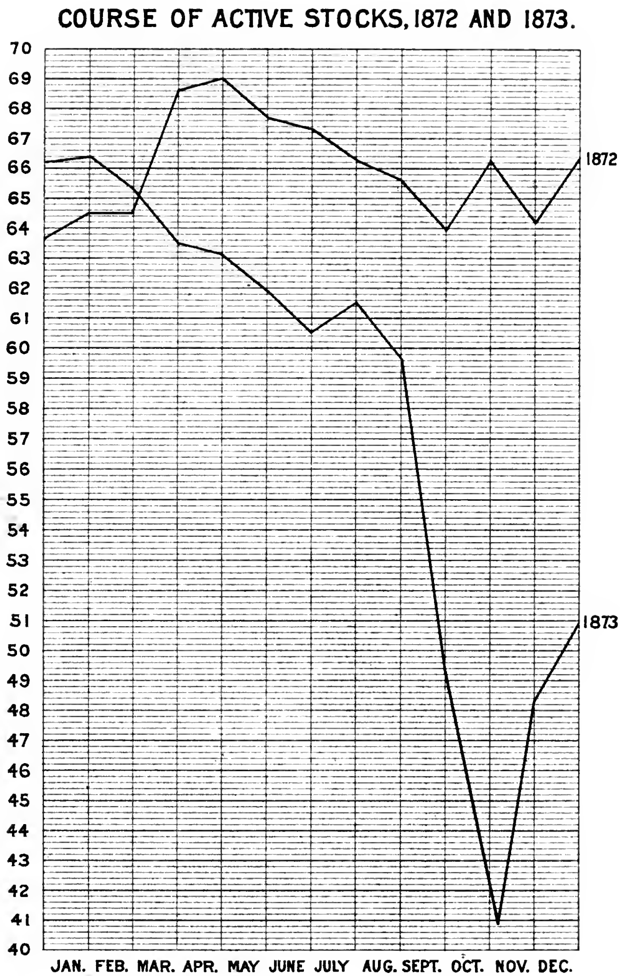
That the prevailing apprehensions were not unfounded began to be apparent in August, when the money market rapidly hardened, and unfavorable bank statements showed larger losses in the reserves than had been expected. It was said at the time, and was doubtless true, that the stringency in money which finally brought about the great disaster had been in a large measure caused by the manipulation of operators for a decline in stocks. But it is to be taken for granted that the hostile forces in speculation will at all times use whatever weapons are within reach, and the state of

facts which made it possible to create monetary stringency, and which invited a great movement for the depression of securities, must be reckoned as the true causes of the collapse which followed. The public had become distrustful and would not buy. The important stocks were held by powerful cliques, who would not sell but stubbornly resisted a decline. The banks was overloaded and commercial credits expanded far beyond the limit of safety. The railroad properties, less prosperous than they had been, were threatened by hostile legislation. The sales of bonds, upon which many companies had relied for the supply of their need in any emergency, had been stopped by the prevailing distrust. Early in the month of September a premium of one-sixteenth per day was demanded for money, and an extraordinary decline in gold indicated that the powerful speculators who had been operating for an advance in that market had at last sold out. The failure of the New York Warehouse & Security Company, September 8th, led to some alarm and depression, but it was still supposed by most dealers that the disturbance was not one of general importance. On Saturday, the 13th, however, the inability of the Canada Southern Railway to meet its obligations caused the failure of Kenyon, Cox & Co., and in the apprehension which then prevailed firms previously of great credit found themselves unable to raise money. On Thursday the failure of Jay Cook & Co. occurred, in consequence of large advances to the Northern Pacific Railroad, and from that time the prostration of funds and of banks continued for weeks. It is to be observed that the Missouri, Kansas and Texas Railroad was involved in some measure in the failure of the New York Warehouse & Security Company, and that the other failures which precipitated the panic were also of houses largely connected with railway construction.

It does not serve the present purpose to discuss in detail the panic of 1873. Its causes have been in a measure de-

fined already, and it is sufficient here to note the extent of depression which resulted in the prices of securities. By the end of September the average of sixty stocks had fallen to $49 22, a decline of $10 40 during the month, and by the first of November the average had fallen to $42 34. Week after week some recovery was anticipated, but instead new depression came, caused by the announcement of new failures. On the 7th of November the average price of stocks dropped to the lowest point yet touched, $40 96, showing a decline from the highest point during the year of $25 43 per share. But the successful arrangements of Claflin & Co. for an extension with their creditors and the unanimous assent of the creditors of Sprague & Co. to the appointment of Trustees to represent their interest in the management of the vast manufacturing property of that concern, started a renewal of confidence, which presently developed into a general improvement. Before the end of the month the average price of stocks had risen $7 32 per share to $48 28, and by the end of the year a further advance was realized to $50 98. At the close o this chapter is a diagram which presents to the eye the changes in the average price of active stocks in 1872 and 1873. It shows the relative importance of those changes, the extent of the great decline in prices, and the sudden ness of the partial recovery. In considering the nature and causes of the panic of 1873 it is especially important to observe the expansion of commercial credits which it disclosed. During that year 5,183 firms were reported as failing, with liabilities amounting to $228,499,000, according to the records of Dun, Barlow & Co. Though the number of failures had been exceeded in 1861, the amount of liabilities of firms failing in any year had never been greater since 1857, nor had the average of indebtedness for each firm failing been exceeded. For many years this average ranged between $20,000 and $30,000 yearly. After the panic of 1873 it fell in 1876 to $21,000 for each firm, and in 1863 it had

been only about $24,000 for each firm. But as the system of credit expanded the average indebtedness of firms failing rose in 1871 to more than $29,000, and in 1872 to nearly $30,000, and in 1873 it exceeded $44,000. The number of failures in proportion to the number of firms in business was not as great in 1873 as it has been since, though the great extension of the facilities of commercial agencies, and the fact that dealers of a much smaller class have of late years been included in their reports, account in large measure both for the increase in the number of failures reported and for the decrease in average liabilities. But during the years 1868 to 1878 inclusive, the operations of the agencies were conducted upon substantially the same scale, and their reports doubtless indicate with great correctness the average of commercial liabilities in different years. If so, the increase from 1868 to 1872 must have been nearly 80 per cent, and the increase from 1871 nearly 35 per cent. It was this vast expansion of credits which made the panic of 1873 so disastrous and widespread in its influence. Though immediately caused by the failure of railroad companies to meet their obligations, it was in the main a commercial panic, and affected all branches of trade and industry. The banks of New York, and in some measure of other cities, which were heavily over-loaded with commercial credits, had also become involved to a dangerous extent in the construction of new railways and in the speculation in railway securities. The inability to sell such securities brought about the bankruptcy of important roads and a collapse in the prices of stocks. But the influence would have been limited, both in time and in degree, had not the credit system throughout the country been expanded far beyond safe limits.


COURSE OF ACTIVE STOCKS, 1872 AND 1873.
70
69
68
67
66
65
64
63
62
61
60
59
58
57
56
55
54
53
52
51
50
49
48
47
46
45
44
43
42
41
40
1872
1873
JAN.
FEB.
MAR.
APR.
MAY
JUNE
JULY
AUG.
SEPT.
OCT.
NOV.
DEC.

V.

Five Years of Liquidation.

The commencement of the first great downward movement has been found about April 30, 1872. The resistance of holders and operators to a decline has been traced; a resistance so stubborn that the average of prices declined only 10.9 per cent. in fifteen months. Yet it was so unreasonable and so unwarranted by the general condition of business that when the break came prices declined 33.4 per cent. in three months, from the end of July to the 7th of November. We have next to consider where the true termination of this downward movement is to be found. The excited operators in 1873 imagined that it had come when prices began to leap upward with astonishing rapidity in the second week of November. The advance continued, as tables show, until the 10th of February, 1874, when the average of prices had risen to $56.96. This advance of more than 34 per cent in a few weeks should have sufficed to warn operators that it had but little substantial basis. If they had looked about, they would have found that the railroad defaults already affecting $650,000,000 of capital, and the stoppage of more than 5,000 commercial firms with liabilities of more than $228,000,000, must inevitably have produced a shrinkage of large extent in the ability of the people to consume domestic or foreign products. They would have seen that the Granger laws had already affected the business of western railroads most injuriously; but during the year 1874 those laws were sustained both by the State Courts and by the United States Circuit Court. They would have seen that the clamor for an inflation of the currency, which had already led to the introduction of measures in Congress, had excited false hopes among traders and, if yielded to, could give only a temporary relief. The down-

ward movement which commenced in February, 1874, was rapid, and by the 19th of May the average price of stocks had declined to $47.98. Congress had passed, in the meantime, an inflation bill, which President Grant vetoed April 22. The compromise measure authorizing an expansion of the circulation to $382,000,000, which the President afterwards signed, was not passed until June 19th. But both business men and speculators had been led to watch the action of Congress in a mistaken hope that some expansion of currency would bring relief. A moderate improvement in prices was indeed made by the vigorous effort of speculators after the compromise bill had passed. But its effects did not last long, and the year closed with prices almost exactly at the level of May 19, the average being $47.92. Early in the next year the Resumption Act was passed. It does not seem to have caused at first any disheartenment or depression in prices, though it was not long before this measure was commonly regarded as the principal cause of business stagnation and disaster. The stock market improved a little after its enactment, but continued dull, and the average only rose to $48.78 on the 27th of April. From that point a rapid decline continued with little interruption until the 9th of October, when prices reached a little lower point than was touched in the extreme of panic in 1872. From the average that day, $39.89, there was but little change to the end of the year, when the average was $40.67. Again in 1876, hopeful anticipations were entertained early in the year and speculators, making the most of them, pushed prices upward until an average of $43.76 was reached on the 11th of March. But in this case, once more, the conviction that the state of business did not justify hopeful expectations was soon forced upon those whose purchases had helped to relieve speculators of a part of their load, and new liquidations followed, with a decline continuing until the average

of prices had dropped to $31.70 on the 29th of September. Nor was there material improvement during the rest of the year ; on the contrary the market continued dull and drooping, and at the close the average had fallen to $29.63.

We come now to the consideration of the two years 1877 and 1878, in which the lowest prices for securities during the whole period under consideration were recorded. Unquestionably the point of greatest depression for speculative stocks was in April, 1877. But it will appear in the course of the investigation that other and more important securities continued to decline, and did not reach their lowest point until near the end of 1878. In order to determine the true turning point for securities generally, therefore, it is necessary to examine with some detail the movements during both those years.

Many influences combined to cause the great decline in prices during the fall of 1876 and early in 1877. Among the first there may be named the great success of the Government in negotiating the sale of bonds bearing a low rate of interest. The arrangement under which a syndicate headed by the Rothschilds contracted conditionally to take $260,000,000 of the new bonds gave enormous strength to the public credit, rapidly depressed the price of gold in the expectation that specie resumption would not long be delayed, and so caused a decline in prices expressed in currency. But, moreover, the calling of the six per cent. bonds, and the substitution of 4½ per cent. bonds by the Government, disturbed the investments of many banks, led to rapid calls by the Secretary of the Treasury for 6 per cent bonds, and gave opportunity to the people to invest in Governments a large amount of their savings. Again, during the year 1876 the entire railway system had been unusually disturbed by a war of rates, which broke out in April on account of the demand of Mr. Vanderbilt for the establishment of equal rates from the interior to the different seaports. In a short time

this contest became one of unexampled severity, and freights were taken in great quantity from Chicago at 20 cents per 100 pounds. It continued throughout the latter part of the year, causing immense losses to the railway companies, and though it was nominally settled December 16th, the terms were not at first clearly understood either by the public or, as afterward appeared, by the railroads themselves. Although rates were generally advanced about the 20th of January, there was nevertheless disagreement and dissatisfaction, which led to another rupture in the month of March. Still another influence greatly affecting the market about the close of 1876 was the serious illness of Commodore Vanderbilt, for his death was expected to disturb to an alarming extent his investments in several of the great railways. His death early in January caused less depression in prices than had been expected, because it appeared that arrangements had been made to prevent sales of his securities and to keep together under one control his vast property in railroads. But there soon followed a contest about his will, which for a time threatened to defeat these arrangements.

Another influence of great importance was the collapse of the coal combination, and the great fall in the price of coal which followed. Serious losses to the coal-carrying roads continued through the winter, and led to investigation into the affairs of companies which had been considered immensely profitable. Then the fact was disclosed that the profits realized from the combination had been far less than had been represented, and that the companies were generally in a position of serious difficulty. Early in the year 1877 the Jersey Central failed to meet its obligations, and was placed in the hands of a receiver, and a further decline in the price of coal naturally followed. Still another depressing influence came from the strike of railway engineers on an eastern railroad, and from the threatening speech made about that time by Mr. Arthur, the Chief of the Brotherhood

of Locomotive Engineers, which was well calculated to alarm all investors in railway property, and proved to be but a foretaste of the destructive strike in the summer of 1877. Finally the silver question began in 1876 to cast a shadow over the financial prospects of the country. In July the price of bar silver dropped in London to 46¾ pence per ounce, and the interests of silver producers in this country were seriously affected. A bill was passed April 17 to provide for the coinage of subsidiary silver instead of fractional paper currency, and in December a bill was passed in the House to make silver coins a legal tender. But though the disposition thus manifested caused much alarm among conservative men, no legislative result was reached until more than a year later.

But other influences not directly connected with commerce or industry were far more important even than those named during part of 1876 and the first quarter of 1877. In 1876 as in 1884, a Presidential campaign caused great excitement and uncertainty in business. Then, as in 1884, the success of one party was by many deemed certain to cause great financial and industrial disorder. Unlimited inflation of currency, and an unsparing warfare upon the protective features of the tariff, were predicted as sure to follow the success of the Democratic party. On the other hand the Democratic party predicted with equal confidence dire calamities as a sure result of the continued success of the party then in power. It believed that the industrial and financial pressure which then existed would continue and become intensified, and that the rich would grind the poor into the dust. In times of political excitement, it makes little difference whether the claims of a great party are reasonable, since they are sure to find enough believers and adherents to give them considerable influence upon the course of business. The political uncertainty was unquestionably a great cause of depression during the fall of 1876. When the

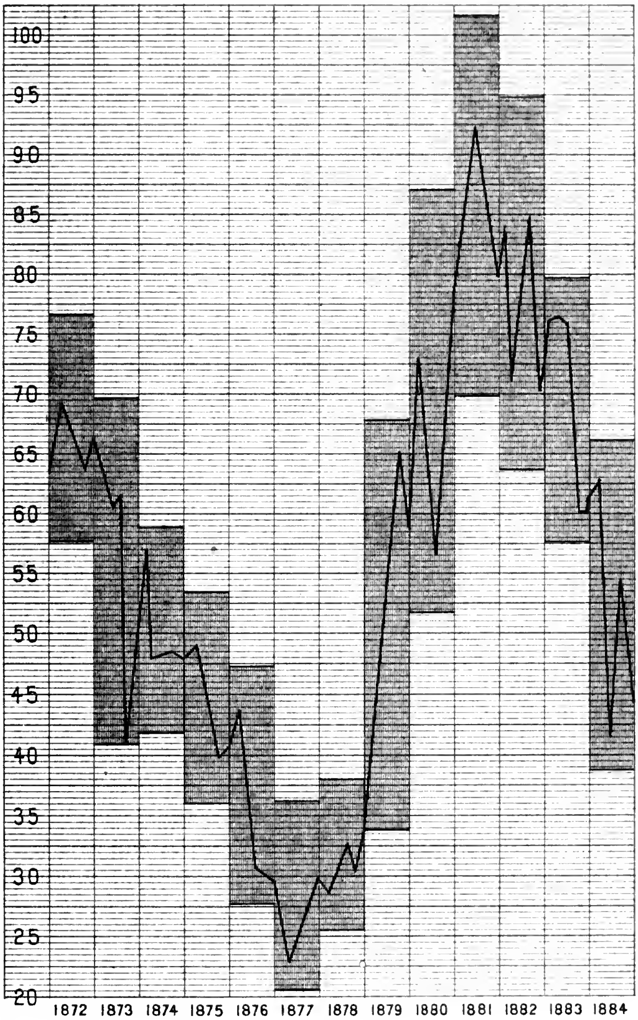
campaign ended in a contested election, the first which had occurred in this country, and civil strife was threatened, and the sort of disorder which had brought other republics to ruin, there was a natural apprehension in all financial circles. The progress of the electoral dispute during the winter rendered any recovery in prices impossible. Moreover, when the Electoral Commission was created by Act of Congress early in the year, although the measure was hailed with great relief and joy as a settlement likely to avert civil strife, there was still a possibility that the finding of the Commission might be resisted. Moreover, the uncertainty as to the result was in no way diminished; no one could predict how the Commission might decide. In each of the great parties there were found men who looked for great calamities if the contest should end in favor of their opponents. Under such circumstances it might have been predicted with safety that a stagnant market and lower prices would rule until the question had been decided, and until a new President had been inaugurated. It might have been predicted, also, that a further decline would follow even then, in consequence of the apprehension and the sales of the defeated party, and the operations of speculators in sympathy with that party.

Such was precisely the course of events. The market was dull and stagnant, with a declining tendency, until the Electoral Commission was created in January. But just at that time the death of Mr. Vanderbilt and the contest about his will threw great properties into uncertainty. About the same time it appeared, also, that the railroad settlement to which he had assented during the last month of his life was not understood alike by all the parties. Thus the uncertainty continued while the Electoral Commission debated. Then the decision in March, and the immediate and peaceful inauguration of the President, were met with great satisfaction, as removing the most important cause of

distrust; but just at that time the failure of the Jersey Central occurred, and a further fall in the price of coal. Just at that time, also, a decision in the Granger suits was rendered by the United States Supreme Court against the railroads, and this decision was interpreted as evidence that the spirit previously shown in the legislation of Western States regarding railway corporations was from that time onward to have no restraint. Another call for bonds also caused a further decline in the price of gold, and it was soon apparent that the railway agreement was ineffective. Within a few days it was set aside by an open rupture, and Mr. Vanderbilt's rule, "One rate to the seaboard," was definitely abandoned. Thus for the time the removal of political uncertainty failed to produce any recovery in the prices of stocks. On the contrary, depression continued on account of the sales of those who were disappointed by the result, and on account of the vigorous assaults of a powerful speculative combination. The stocks of many trunk lines were savagely assailed, and presently these attacks were so far successful, particularly in depressing the stocks of Granger roads, that Mr. Tracy, the President of the Rock Island, was unable to meet his obligations. Thus the remarkable depression culminated on the 23d of April in prices which were even then recognized as surprisingly low, and which, as those who look back at the history of that time discover, were actually the lowest recorded for fifteen years.

Some reaction from this point would naturally have occurred in any case. Several events of importance combined, however, to make the reaction rapid, and for the time important. Chief among these was the outbreak of hostilities between Russia and Turkey. For some months the prospects of war between these powers had affected the speculation in grain, and had been used by operators in railway securities on the theory that a greatly increased demand for American products in Europe must result, and con-

sequently a great increase in the traffic of the railway lines from the interior to the seaboard. The delay and uncertainty during the early months of the year had caused the matter to have little influence, for some time previous to to the actual outbreak of hostilities. But when the war began, it was felt at once that the demand for various products from this country would prove of considerable importance, not only to the transporting companies and to those having grain and provisions for sale, but to the manufacturers, especially of arms and ammunition. Just at the same time, also, the trunk lines finally completed their new agreement. Soon afterwards rates were generally restored, and it was then believed that, with a large export demand, the companies were in position to earn better dividends than for many years before. About the same time, also, the coal companies succeeded in effecting a new combination which, though not long lived, served for the time to strengthen the stocks of coal carrying roads. The speculators who had fought for a decline in prices had generally covered their contracts, while the strong men of the street, having early knowledge of the negotiations between the trunk lines and the coal-carrying roads, had prepared themselves for an advance. Thus it came to pass that about the end of April, 1877, the speculative market started upward, and from that time it did not cease its advance until the summer of 1881. In the diagram on the opposite page the black line traces the change in average prices between different points which has thus far been described, and shows in a striking manner the variations in price between the highest point, touched early in 1872, and the lowest, reached five years later. The shaded parts show the limits within which trading was confined each year, as has been described on page 71. A table there given shows the averages of the highest sales recorded of sixty stocks at any time during each year, which averages corresponds with the upper mar-


100
95
90
85
80
75
70
65
60
55
50
45
40
35
30
25
20
1872
1873
1874
1875
1876
1877
1878
1879
1880
1881
1882
1883
1884

gins of the shaded parts of the diagram, and also the averages of the lowest sales recorded at any time during each year, these averages corresponding with the lower margins of the shaded portions of the diagram. As the prices of stocks on any particular day would never be quite as high as the highest prices reached by them during the year, nor quite as low as the lowest prices reached by them during the year, the black line, if so drawn as to represent minutely every change in the average of prices from day to day, would in all its variations rarely approach the margin of the shaded parts. And in fact, though drawn to represent only the larger movements of the market, it closely approaches the margin at only two points; in the panic of 1873, the lowest prices for nearly all stocks during the year were made on the same day, and the closing prices of 1878 were lower for nearly all stocks than any quotations made during the whole year 1879. The extraordinary depression in 1873 thus appears to have been by no means the end, but only the beginning, of a decline which lasted about three and a-half years before a change was reached, even in the course of speculative prices. But it will presently appear that the general level of prices for all securities was still further depressed after the year 1877, so that in the broader sense a general recovery did not commence until the latter part of 1878.

The month of May, 1877, opened with very easy rates for money, and with lower prices in grain and provisions, the effect of the war in Europe having been exaggerated in the general anticipation. Some demand for investment securities was observed, and the better class of stocks advanced in price without regard to the speculative movement. The speculative stocks were also firmly held, but the uncertainty as to the success of the coal combination, and a doubt whether railroad earnings were as good as had been expected, caused weakness in many stocks. About this time, also, the exports of domestic products declined while the

imports increased, so that in June and July the imports exceeded the exports, and in May a considerable outward movement of gold occurred. The premium on gold ranged during that month between 6 and 7⅜ cents on the dollar. Early in June, however, Secretary Sherman succeeded in completing with a syndicate an arrangement for placing the four per cent. loan, and the confidence that resumption would be accomplished from that time steadily increased. Though many stocks were depressed by unfavorable earnings, it was believed that the general reduction of 10 per cent. in wages, which had been effected on many roads, would materially increase their power to earn dividends, and and before the month closed a new agreement was made between the trunk lines in regard to freight rates from the West. Mr. Vanderbilt's much heralded great principle, "one rate to the seaboard," was abandoned; but rates were adjusted in proportion to the difference in mileage to the different ports. Early in July the negotiation of the 4½ per cent loan by the syndicate was completed, $65,982,500 of the new bonds having been taken, $60,000,000 by the syndicate, and the rest by the subscriptions of the public. This gave great encouragement, and arrangements were at once commenced for a strong upward movement in stocks.

While leaders were negotiating, however, some unfavorable events occurred. There were, first, several bank failures at St. Louis, and failures of insurance and other companies elsewhere, indicating that the commercial situation was by no means satisfactory. On Friday, July 20, it was learned that freight at Pittsburg was blocked in great quantities by a strike of the railroad hands. Within a few days this outbreak spread rapidly all over the country, interrupting travel and traffic on nearly all the principal lines of the Northern States, and causing immense destruction of property and much bloodshed at Pittsburg, at Reading and other points in Pennsylvania, at Chi-

cago, and at other railroad centers in the West. On the 23d and the 24th of July a serious panic resulted in the Stock Exchange, and for the time many operators showed a disposition to throw overboard even the best securities without regard to their value. It is related that at that time, when many of the most experienced and boldest operators were either absent from the street or stricken with panic, the purchases of one brave and clear-headed man stopped the depression before it had involved important houses in disaster, turned the tide, gave men of more experience time to recover their composure, and soon resulted in immense profits for himself. Because of his good judgment and courage, the great strike had much less effect on prices than had been anticipated, and although the Pennsylvania Railroad was compelled to pass a dividend in order to repair damages, a vigorous speculative movement in Western Union presently advanced the price from 66 to 75. About this time, too, it became known that the crops of the year would be very large, and that the demand for American products from abroad was likely to be of unprecedented magnitude. The negotiations for the formation of a powerful combination to advance prices were resumed, and before the end of July were successfully completed. Thus the month of August opened with a general advance under most favorable auspices. All the powerful speculators who had for some years been engaged in depressing prices had now become interested in aiding the advance, and the labor disputes, which had continued to cause much trouble during the month of July, reached a settlement early in August. From that time the advance continned with scarcely an interruption until the close of the year. Money was close in September, and in October the frauds of W. C. Gilman gave a shock to the street, and the offering of a bill to repeal the Resumption Act at the extra session of Congress also caused some disturbance. But the upward movement was

nevertheless pushed with determination, and it was powerfully aided by the enormous increase in exports of domestic products, which rose above $50,000,000 in September, amounted to almost $60,000,000 in October, exceeded $64,000,000 in November, and rose above $70,000,000 in December. In that month the excess of exports over imports was nearly $40,000,000, and from July to the end of the month moderate imports of gold in excess of exports appeared each month.

Nevertheless there was not a little uncertainty and discouragement in commercial circles. In November the failure of the Third and Central National Banks of Chicago caused some disturbance. During part of October and the rest of the year, the efforts to bring about a change of the tariff caused apprehension among manufacturers, and led to an unusual shrinkage of imports, and early in November the Bland Silver bill was passed in the House by the extraordinary vote of 163 to 34. This measure caused great anxiety in all financial circles, and from that time until late in February of the following year the uncertainty as to the action of Congress on the silver question engrossed the attention of the street. In November, also, it was observed that the price of coal did not advance, though there were rumors of another coal combination, and that the public still refused to invest in stocks although the advance in prices had now been maintained quite steadily for more than three months. Presently very large sales of the Lake Shore led to the suspicion that some members of the combination were selling out, and the circumstances caused a general hesitation among investors and the smaller operators, who looked about them to see whether, in the language of a financial journal at that time, "the late advance in prices was as yet fully warranted by the business of the companies." In December the bad faith of some States disturbed the bond market; the failure of Netter and of some

trust and other companies caused apprehension, and freight rates were again unsettled. Nevertheless, prices were on the whole fairly maintained to the close of the year, though clearly in spite of a remarkable public indifference, and the average of sixty stocks at the end of 1877 was $29.70, nearly $7 per share above the lowest price of April. But the fact that the advance, like the preceding depression, had been mainly due to speculative combinations, was generally recognized. Thus the "Financial Chronicle," in its review of the year 1877, remarked: "On the whole the extraordinary depression and the extraordinary rise afterwards, both carried on by speculative manipulation, were calculated more than ever to show up the enormous advantage which a clique of speculators possesses over an outside purchaser." This may be noticed as perhaps the first distinct recognition of the indifference of the market for speculative securities to that public estimation of values and of conditions which must always govern, in order to render such a market either honest or safe.

The year 1878 opened with a continuance of the "seemingly endless war of rates," though Mr. Vanderbilt took particular care to deny that he had caused or provoked this strife or was desirous of continuing it. Prices were quite steadily held, with some aid from purchasers for investment, though the pending Wood tariff and the debate on the Silver bill still rendered capitalists very timid. But the enormous excess of exports over imports, which amounted in the month of January to nearly $35,000,000, had by this time an irresistible influence upon the credit of the Government and upon the price of gold. The premium on gold had declined to 1¼ cents on the dollar, and it was felt that, if only the danger of Congressional interference with the currency and the public credit by measures like the Bland bill could be avoided, specie resumption would be easily and surely reached. In February, however, the apprehen-

sion about the silver question caused great dullness, and an important defalcation was discovered in the Bank of North America. It was commonly observed that the great speculators, who were heavily loaded with stocks, were obliged to sustain prices in self-defense. On the 21st the Silver bill finally passed, and on the 28th, "the last day of winter," as some enthusiastic believers in silver coinage remarked, the bill was vetoed by the President but passed on the same day by both Houses of Congress. It was the general impression at the time that this measure would cause capital to grow more timid than before. But the great speculators who were heavily burdened with securities could not then afford to permit any reaction, for they found it quite impossible as yet to lighten their holdings, because the public steadily refused to purchase. They were obliged, therefore, to arrest the tendency to decline which then appeared, and the average price of securities, $28.73 at the end of February, was advanced by the end of March to $29.95. Among the influences employed to promote better prices were another combination of the coal companies, notwithstanding experience had taught that such agreements in the existing state of business could only result in disaster, and a new agreement among the trunk lines upon the basis of a 30 cents rate from Chicago. It was observed even then that the market had no support as yet from the outside public, but was sustained only by the large operators who were carrying heavy blocks of stock. The month of March closed with some disheartenment on account of the large number of commercial failures, which, according to the report of Dun, Barlow & Co. for the first quarter of the year, numbered 3,355 with liabilities of $82,078,826 against only 2,859 in the previous year with liabilities of $54,500,000. Early in April, too, money was stringent for a short time, as much as a 32d being paid per day in addition to the legal rate. For a time, there was much anxiety in speculative

circles, and the question was continually asked, "Will the public ever begin to buy?"

About the 10th of the month Secretary Sherman announced that he would sell bonds amounting to $50,000,000 for resumption purposes. This announcement, and the prompt response which it met from the public, changed the feeling of capitalists to a remarkable extent. With confidence that resumption would be secured there came a strong disposition to buy good securities, and for a time the market advanced with vigor. The passage of the Pacific Railroad Funding bill, and the sale of the Erie Railway and its reorganization, settled the immediate future for stocks and bonds amounting in the aggregate to several hundred millions, while the continued excess of exports over imports, amounting to nearly $25,000,000 in April, depressed the price of gold to 100⅛. With such favoring conditions the market advanced into the month of May without material check. It may be noticed that the courts were resorted to by speculators opposing an advance, who obtained an injunction against the payment of interest on the Wabash securities. There was a momentary halt in speculation, and some were inclined to inquire whether the advance had not gone far enough. But on the 25th the loan for resumption purposes was closed, the money market was easy, exports still exceeded imports and prices were again strong. Just at this point an Act was passed which, in the mistaken estimates then current was considered a reason for increased confidence, but which, as later experience has proved, was the seed of great financial evils in the future. This act, prohibiting any further cancellation of legal tender notes, and requiring that those which might be redeemed after resumption had commenced should again be reissued, changed the whole character of the resumption authorized. Instead of substituting gold coin for a part of the notes in circulation, it provided for a continuance of the legal tender debts

of the Government without diminution, and consequently for a direct addition of the entire amount of gold in the country to the circulating medium unless resumption should be defeated. But at the time the effect was just what the speculators anticipated, and it did produce in the following year a great inflation of currency, and a far too rapid advance in prices.

It was with such conditions, in all respects peculiarly favorable, that the month of June began, and the prices of stocks were further advanced upon the return of Mr. Vanderbilt from Europe. Several ingenious reports were put into circulation at this time, in order to stimulate the disposition of the outside public to buy. Thus it was said that the Rock Island was about to make a large scrip dividend on account of expenditures in past years claimed to have been from the earnings. There was also assurance given that the trunk line arrangement, which had worked well for three months, would be renewed for another year at the meeting of managers. But shortly after Mr. Vanderbilt's return on the 11th of June a great break in stocks began. The reason commonly given was that the trunk lines had refused to renew their agreement, thus virtually dissolving the pool. But it soon became known that some of the powerful operators who had sustained the movement thus far had sold a great proportion of their stock. It was believed that Mr. Vanderbilt, while professing most anxious desire for peace, had really caused the rupture because he was anxious to fortify his companies against Western competition, and to that end was seeking the Michigan Central, was placing obstacles in the way of the completion of the Grand Trunk to Chicago, and was endeavoring to secure the Atlantic and Great Western, having completed the Rochester and State Line to a junction with that road. The consolidation of the Vanderbilt interests in July brought a revival of hopefulness, and Mr. Vanderbilt publicly re-

commended an advance of rates; but this demonstration was again followed by a break in prices, which the continued success of Mr. Sherman's plan did not suffice to arrest. Early in the month of August it was seen that a powerful speculative combination to depress prices had been for some time at work, and its attack, especially upon the Granger stocks, finally met with great success. During the same month, also, the business of the country was greatly disturbed by the immense number of failures. The repeal of the bankrupt law, which had been enacted some months before, was to take effect September 1st, and in expectation of that event a large number of firms made haste to close up their affairs. The failures during the third quarter of the year, as afterwards reported, amounted to 2,853 in number, with liabilities of $66,378,000, against only 1,816 failures during the same quarter of the previous year, with liabilities amounting to $42,388,000.

Disturbance was also caused about the same time by the singular and contradictory orders given by the Treasury Department in regard to the use of silver in disbursements and in the redemption of notes. For a time it seemed as if the department was disposed to redeem legal tenders with standard silver dollars only, and considerable alarm in commercial circles resulted. This state of things, with uncertainty in the stock market, and growing stringency in the money market, continued through the month of September. Early in October, the terrible failure of the City of Glasgow Bank caused extraordinary disturbance in Europe, and for a time affected many foreign firms in this country, and about the same time Treasury orders requiring the withdrawal of cash gold from the banks to the Treasury vaults increased the pressure for money. Speculators made haste to take advantage of the opportunity, and on the 14th of October engineered a serious "cramp" in the money market, which brought about a considerable depression in prices. Secre-

tary Sherman, however, quickly saw that the orders which had been given were liable to defeat the resumption of specie payments, and met the difficulty without hesitation by offering to disburse gold at once in exchange for bonds to any amount. Within a few days the difficulty was fully removed, the price of gold again declined, the stringency in the money market vanished, and prices again moved upward. During the month of November there was a general improvement, though the coal stocks were greatly depressed, and reports of an arrangement to distribute the surplus of the Western Union, upon which that stock had been much advanced, were soon found erroneous, and were followed by a sharp decline. Nevertheless the tendency of the market, from the latter part of October to the close of the year, was steadily strong and advancing. It will be seen that the lowest prices for all securities were reached about the end of October, when it became clear at last that nothing was to prevent the resumption of specie payments on the 1st of January. Under the influences which have been described, the average price of active stocks, which had scarcely varied during the months of June, July and August from about $31.50, advanced about the close of September to $32.53, but declined near the end of October to $30.63. From that point there was a gradual advance to $32.95 at the close of the year.

Thus it will be observed that there were many causes co-operating during the years 1877 and 1878 to cause unusual depression in prices. Among causes directly affecting speculation may be specially named the war of rates, the great strike of railroad hands, and the heavy losses which the strike produced. But more important than these were causes of a legislative or political character. The agitation of the silver question and of the tariff question caused disturbance. The repeal of the bankrupt law produced an extraordinary number of failnres. The uncertainty as to

resumption was an especially important cause of apprehension and disaster. In the fall elections the repeal of the Resumption Act was made a distinct issue in several of the States. The defeat of those who had opposed the Act had not a little influence in removing apprehension, both because a new Congress much more favorable to resumption was elected, and because it was believed that after such a decision of the people the old Congress would not venture at its second session in the winter of 1878 to reverse the policy of the Government. The removal of this and other causes of depression gave sound reason to expect a period of general improvement.

But behind all the speculative or political causes was the great and dominant fact that the country had successfully passed through an era of general liquidation, had paid off an enormous indebtedness, national and commercial, had for years cultivated an unaccustomed economy in living, had reduced prices to the lowest point known for 40 years, and had thus vastly expanded its sales to foreigners. Meanwhile the people had greatly increased their savings, and were seeking safe opportunities of investment. Thus the country was prepared for a period of remarkable prosperity. There can hardly be a doubt that if resumption had been effected on a more sound and enduring basis, the sure and steady improvement in business and industry would have lasted for years, certainly much longer than it did last. Had gold been substituted for a large part of the legal tender circulation by means of actual redemption and retirement, so that the increase in the volume of currency by the re-monetization of gold would have been small, and had the causeless, profitless and senseless experiment of silver coinage, regardless of accord with other nations, not been made, had our industries been allowed to devevelop themselves naturally and gradually upon the specie basis, in harmony with the commerce of other countries, there

might have been no explosive "boom" in prices in 1879 and 1880, no unnatural expansion of trade and speculation tending to end in disastrous reaction at the first check in 1881, and no such wild era of reckless railroad building as quickly followed specie resumption by the process of inflation in 1879.

It will be interesting at this point to compare the following table, showing the average prices of sixty stocks at important points near the beginning of each month in 1872, 1873, 1878 and 1881, and at the close of those years, with the diagram opposite page 92 :

	1872.	1873.	1878.	1881.
January 1	63.57	66.31	29.82	81.63
February 1	64.45	66.39	29.52	84.83
March 1	64.43	65.24	28.73	79.37
April 1	68.59	63.43	29.95	85.31
May 1	69.03	63.14	30.66	85.60
June 1	67.76	61.91	31.52	94.40
July 1	67.27	60.51	31.32	92.42
August 1	66.26	61.50	31.69	83.29
September 1	65.62	59.62	31.01	83.68
October 1	63.87	49.22	32.53	84.35
November 1	66.25	40.96	30.63	83.94
December 1	64.16	48.28	32.32	86.34
Close	66.40	50.98	32.95	81.98

It is to be noticed, however, that the diagram is drawn to correspond as far as possible with the quotations of the same stocks from 1872 to 1881 inclusive, and therefore does not represent quite as high an average of prices at the highest point in 1881 as was reached by the new list. The details of the change in stocks quoted have been given on page 74, and the quotations for the new list, 1881, will be found at the close of table No. 7 of the Appendix.

VI.

Resumption by Inflation.

At the close of 1878 the average price of the active securities included in the tables for subsequent years was $32.99. Before the end of 1879 it had risen to $65.03, so that those securities had about doubled in value in a single year. In 1880 it rose to $79.81, and in 1881 to $92.15. This wonderful advance, without a parallel in the financial history of this country, or perhaps of any other, needs especial notice.

It was a marvellously constant and uninterrupted advance. In glancing at the diagram opposite page 92, the reader will observe that the straight lines between points months distant do not represent the exact course of prices during the intervening periods. The actual course of the market, if portrayed from day to day, would be represented by a zig-zag path of infinite fluctuations, alike in the periods of general decline and in times of great advance. But there was much less of this hesitancy and variation in 1879 than in any previous year in the history of speculation. It seemed as if the market was forced upward every day and hour by some vast and irresistible power, which all the speculative combinations were impotent to resist. And so in fact it was Repeatedly the leaders of speculation judged that the advance had been too rapid, or had gone far enough for the time, or they wished to turn their paper profits into solid cash, and sold their securities. They expected to see a great decline at once. Most of them were overjoyed to have opportunity to sell on "short" account, in anticipation of the decline which they supposed must follow a change in the position of the great operators. But the decline did not come. All the minor speculators followed their accustomed leaders, and at times nearly every-

body in the market was looking for lower prices, and yet the market was continually forced upward. Powerful combinations were formed to break it, and great sums of money were risked and lost in the effort. It was all in vain. The speculators, great and small alike, were finally forced to climb after the stocks which they had sold so confidently, and to accept a heavy loss as the penalty for attempting to control a market which for the time was real, genuine, alive, and faithful in expressing the public appreciation of the value of securities.

During the month of January the market advanced with a great rush, and it was noticed that a much larger number of "outside orders" was received than had been received for years before. The remarkable success of the Government in placing $150,000,000 of the four per cent. bonds gave a tremendous impulse to public confidence. Early in February the upward movement continued, and the Government again succeeded in placing $100,000,000 of the bonds. It was noticed that the leaders of the market were selling, but prices nevertheless advanced. Orders for purchases came from all parts of the country, and from people who had never before taken part in stock operations, either as investors or as speculators. The volume of these orders was so great, and they withdrew from the market so large a part of the stocks which the chief operators had been willing to part with for a time, that prices were forced upward in spite of all resistance. In the month of March a fear of monetary stringency arose, because of the large amount of Government bonds for which payments were to be made. This fear was for the time increased by the suspension of New Orleans banks, which had been heavily involved in operations both commercial and speculative. At this time a temporary depression in prices resulted, but it lasted a few days only, and fell so far short of the decline which the leading operators had expected, that comparatively few if

any took advantage of it. Early in April occurred a most remarkable sale of bonds. The Government sold $190,000,000 four per cents in a single transaction. This operation, following a season of some depression and distrust, gave a remarkable impetus to the market and caused a great upward movement in prices. Conspicuous in the dealings of that month were the stocks of the new southwestern roads, with which Mr. Gould had become identified, and in their surprising advance people saw reason to believe that the growing prosperity of the country had overcome even those impediments to commercial success which for a long time had retarded the growth of exclusively agricultural Southern States.

In the month of May, again, there was noticeable selling by the leaders of speculation, who desired to realize profits secured in the previous advance. Afterwards the money market was actively manipulated in order to depress prices, and the railroad managers engaged in a war of rates, and rendered the large traffic for the time unprofitable. Nevertheless prices were still remarkably sustained, and after some hesitation began to advance again. In June this upward movement continued. The undertone of strength, caused by large purchases of investors, was everywhere recognized. A general depression was expected by almost all operators, but it did not come. During the latter part of the month, and early in July, there was dullness, it is true, but extraordinary strength nevertheless, which was in part attributed to the favorable news regarding the crops. Later in the month, when it became certain that the crops were to be large, and that no depression in prices could be produced except by great sacrifices of stocks, the market again began to move upward with astonishing rapidity, speculators who had previously sold rivalling each other in their haste to secure the very stocks which they had expected to depress. The upward movement included all classes of securities,

and was especially rapid in bonds of new and promising enterprises. The beginning of large imports of specie gave another impulse to the movement in August, and the reports from Europe, indicating that foreign crops were short and that very large exports of breadstuffs would be required, favored hopeful estimates as to railroad traffic, and prompted great activity in the grain market as well as in stocks, but thus led to considerable stringency in the money market. On the 15th a sharp though temporary decline was carefully engineered, under circumstances which left little room to doubt its purpose. For some days statements had been carefully circulated, apparently on the very highest authority, that the Lake Shore Railroad was about to be leased to the New York Central, and operators in great number had been led to buy the stocks of the Vanderbilt roads in the expectation of an advance. When it was announced that the meeting of the Directors had adjourned without taking any action in the matter, and that in fact no lease whatever had been contemplated, an attack upon the stocks caused a rapid decline and for a short time affected the whole market. But again the support given by the purchases of investors from all parts of the country was so steady and so strong that the depression quickly ceased, and probably failed to yield the desired results to those who had contrived it. Early in September the market became buoyant again, particularly in the low-priced stocks and in those not formerly active in speculation. The oldest operators were amazed at the vigor and persistency of the advance, which continued throughout the month with scarcely a check. In October they were still more astonished, for even the marvellous advance of September seemed insignificant in comparison with the upward leaps made day by day in the prices of active securities. Undoubtedly, during this month most of the speculators sold again quite largely, and it is equally probable that not a few of them bought back again at higher

prices. But in November, when the strongest operators had sold, and when a large proportion of the stocks had gone into the hands of investors and the smaller dealers in the street, a stringent money market was artificially produced for the purpose of depressing prices. Even then there was much stubborness, and prices did not seriously break until a violent attack was made about the 20th, when the rapidity of the decline showed that for the time the disposition of investors to purchase had abated.

It was a little later, November 26, that there was announced one of the most remarkable transactions in railway securities ever effected. For more than a week, as afterwards appeared, Mr. Vanderbilt had been in negotiation with Mr. Gould and several associates regarding the sale of a large interest in the New York Central. It was then thought not improbable that the tremendous effort made to cause a depression of prices on the 20th and for some days afterward was in part prompted by these pending negotiations. At all events, after that decline the negotiation was finally completed, and 120,000 shares of the New York Central stock were sold to the syndicate. From that time until the close of the year the market grew steadily stronger, but no special efforts were made to secure a great advance, for reasons which became apparent early in the next year. The average of the closing prices for 1879 was $58.68, just $25.69 per share higher than the closing prices of the previous year.

In January, 1880, many important operations were announced, all looking toward great changes in the position of individuals in the market and in the plans of railway managers. Mr. Gould and his associates, under the option included in their first transaction, took 100,000 shares more of the New York Central stock from Mr. Vanderbilt; Mr. Huntington sold 100,000 shares of the Central Pacific; the consolidation of the Union Pacific and the Kansas Pacific

and other roads was effected, and the Missouri, Kansas & Texas was purchased by Mr. Gould and advanced $15.50 per share. In addition, the Louisville & Nashville bought the controlling interest in the Nashville, Chattanooga & St. Louis at a high price, and a great advance in the Louisville & Nashville immediately followed, not less than $34.75 per share in that month. All these operations pointed to new and far more extensive consolidations of railroad property than had hitherto been made. Mr. Vanderbilt, in order to complete the connections of his system west of Chicago, invested largely in Northwestern stocks. Mr. Gould, having now a large interest in the New York Central, and control of the Wabash and the roads connecting it with the Union Pacific lines, appeared to be on the point of securing a complete system from ocean to ocean under one management. The advance in all securities connected or supposed to be connected with this gigantic combination was singularly rapid.

Nevertheless, early in 1880 unfavorable symptoms appeared in the markets for products. It was noticed that a great quantity of grain was collected at Chicago, through the operations of a powerful pool of speculators, and that the movement eastward as well as the movement to Europe was completely blocked. The price was held so high at Chicago, notwithstanding the enormous yield of the previous year, that shipments could not be made with profit, and in consequence money became more scarce. Early in February the market was decidedly stringent. But stocks nevertheless continued to advance, though the upward movement was mainly in new securities rather than in the stocks of the roads formerly active in speculation. Besides the stocks already named, Houston & Texas Central advanced $28.50 per share in January, Pullman Palace Car $18 per share, Indianapolis, Bloomington & Western $14, Chicago, Burlington & Quincy $13, and Oregon Navigation $12 per share.

But before the month closed it became apparent that the speculation in grain and cotton had checked exports to Europe, and that the country was likely to have left on hand an unusually large quantity of its most important products. In March and in April this state of things caused frequent interruption in the upward progress of securities, and the operators for a decline were aided by the circumstances which enabled them at almost any time to make the money market exceedingly tight. Imports had become large, amounting in March to $71,000,000 in value, against exports valued at $77,000,000, and in that month some gold went out of the country. In April the imports amounted to $75,000,000, against exports amounting to $70,500,000. The bank reserves ceased to show any considerable surplus over the legal requirements about the first week in April, and the amount of cash held continued low for four weeks. By a powerful speculative combination, in which New York operators had a leading part, the price of wheat had been artificially maintained above $1.22½ at Chicago until about March 6, and by the 20th of that month had only fallen to $1.18¼, but by the 17th of April the combination had been so far defeated that the price fell to $1.08⅜. Though it afterward advanced to $1.16, May 15th, the collapse of the pool followed, and the price fell to 91 cents June 19th. The average price of active stocks reached its highest point during this part of the year late in March, namely about $72.69. The advance in Rock Island was $37.75 in March; in Louisville & Nashville it was $18.75 in February and $20 in March; in Burlington, Cedar Rapids & Northern it was $16.50 in March, and in Western Union it was $10.37 in February. Though the average of prices had declined by the end of April without any important break to $65.39, the stubborness of prices showed that forcible measures would be needed to produce a sufficient decline to serve the purposes of speculators who had sold. Such

measures were used. In the month of May the first great depression was produced, and many people who had held tenaciously throughout the period of stringency in April became discouraged and began to sell. Then a vigorous attack, in which most of the strong operators of the street apparently participated, was rendered more effective by the feeling of investors that the advance in prices during the past eighteen months had been wonderfully rapid and large. It was felt, too, that the country had been greatly injured in its commerce by the speculative advance in the price of products, and there was not a little apprehension that a serious and long continued reaction might follow a period of speculation so unreasoning and so wild. The suspension of the Philadelphia & Reading Railroad and Coal & Iron Company increased the alarm, and operators who were prompt enough were enabled to cover their sales on "short" account or to make new purchases. Thus produced, the decline in the average price of active stocks from the end of April to the lowest point in May was nearly $10 per share.

In June a better state of facts existed. The speculation in wheat had been completely broken, and a vast quantity of grain came forward from the West. Though much of it was too late to find a foreign market, large exports of merchandise dispelled the fear of exports ot gold. The banks rapidly improved their position. Railroad earnings were good; the growing crops all promised well, and foreign exchange dropped two points during the month. Naturally there was a rapid advance in stocks, if for no other reason, because of the purchases of those who had speculated for a decline. But it was noticed then that, although investors bought largely, there was a less confident feeling than before. The artificial character of the recent depression, by which many persons had been severely injured, caused much distrust. The feeling began to spread that the market was no longer an honest and free expression of the public

opinion as to securities. It is important to note that this was the second considerable decline produced by artificial means, because these depressions in the end destroyed the confidence of investors and of the public, and led to the stranding of stocks in the charge of the cliques, which afterwards manipulated the market and dishonestly managed the finances of railroads in order to influence buyers.

The month of July brought renewed shipments of gold from Europe and a much better state of feeling. The general condition of business appeared to control the market again. In the language of a financial journal, "the impression gained ground that the decline in May had been forced by speculative manipulation, and was not warranted by the actual condition or prospects of the several companies." This restored confidence in a measure; but it is to be remembered that it also prepared the minds of investors to regard with great disfavor and distrust any new indication of artificial control of prices. The market during the summer was largely influenced by political events. Presidential candidates were nominated, and the excitement disclosed somewhat the same diversity of interests and of opinions regarding the financial future that exerted so great an influence in the fall of 1884. In August stocks were strong and prices steady, though some apprehension was caused by rumors that a new line was about to be built from Binghamton to Buffalo in opposition to the Erie. The combat between the Wabash and the Burlington & Quincy railroads also disturbed Western traffic and the prices of Western securities. But the earnings of railroads continued large, and the exports of products were large, and gold was still coming to the country. In September the imports of gold were $16,000,000, though there were also large imports of merchandise. Prices were remarkably supported in view of the fact that the market was especially sensitive throughout the month on account of political excitement and uncer-

tainty. But the confidence of many that a change in the policy of the Government was about to take place, and knowledge of the threatened building of new competing lines of railway, at length gave an advantage to those who strove to depress prices, and a sharp decline was produced. In spite of large earnings and the abundant supply of money, which helped to sustain prices, a feverish condition continued during the first part of the month of October. But when the Indiana and Ohio elections, which occurred on the 18th, had given assurance that there was to be no change in the policy of the Government, great buoyancy in prices at once appeared. The market was described as the most confident and active of the year. Some stocks jumped 5 or 10 points in a single day. The Louisville & Nashville declared a stock dividend of 100 per cent,.and the zeal of buyers was stimulated by tidings of largely increased earnings on many roads, by imports of gold amounting in October to over $16,000,000, and by an easy money market.

During the closing months of 1880 the same conditions prevailed with little change. It was by experienced men regarded as the most remarkable market ever seen, not only because of the rapid and continuous advance in prices, but because the public appeared to control the movement by purchases of enormous magnitude regardless of the operations of speculators. In November another attack was made by the operators for a decline, but it resulted in defeat and in a further advance of prices. United States bonds had become high and scarce, and the earnings of the railroads surpassed expectation, while the Street was constantly excited by reports of stock dividends or of new issues connected with undertakings of extraordinary promise. Only $7,000,000 in gold came into the country during November, but more was reported on the way, and efforts to depress prices by creating a scarcity of money were abandoned about the 1st of December. The speculators for a decline, being

then compelled to get back the stocks which they had sold, increased the advance by their purchases, and on the 17th the purchase of the Iron Mountain and the International & Great Northern Railroads by Mr. Gould greatly extended and strengthened his system, and gave a new impetus to the upward movement in the securities with which his name was connected. An important failure, that of Arnold & Co., was caused by an attempt to control the price of Java coffee throughout the world, and it was followed by another sharp attack in the stock market, especially upon Western Union, which however quickly recovered. It was noticed at this time that stocks to an unusual amount were going abroad, and the assent of English bondholders to the rcorganization of the Reading Railroad, with reports showing a very large increase in the earnings of the Vanderbilt roads, gave the market a support so general that nothing could resist it. Thus prices were pushed upward so steadily that the highest point reached during the whole year was on the last day of the year, when the average price of sixty active stocks was $78.92.

It is usually expected that the investment of money disbursed in interest or dividends, and of the profits drawn from the business of the previous year, will cause much activity in securities shortly after the 1st of January. This expectation was not disappointed in 1881, and the market opened with great strength and continued to advance throughout the month. The Vanderbilt stocks were sought by investors at very high figures; the Western roads reported great earnings from the movement of the large crops of 1880; the Northern Pacific stocks mounted higher than ever; and the reported consolidation of the Union Pacific and Central Pacific appeared to complete Mr. Gould's long desired combination from ocean to ocean. The demand for investment securities was especially large, and faith in the future was strengthened by the fact that the prices of com-

modities were generally lower than in January, 1880. This gave confidence that the exports of products would continue to bring to the country large supplies of gold. In January, 1881, wheat sold at $1.17½ per bushel, against $1.44 in January, 1880, and iron at $24.50, against $40, and wool at 40 cents, against 44 cents, and cotton at 11.69 cents, against 13 cents. It was justly reasoned that the comparative absence of speculative inflation in the prices of products would prove helpful both to foreign commerce and to home manufactures. A very important event which occurred during the month of January was the consolidation of the telegraph companies, which had been for years competing with each other, and the enlargement of the stock of the Western Union to $80,000,000. Early in February, also, it was announced that Mr. Gould had secured the control of the New Jersey Central, and the advance in prices, which had now continued for nearly five months without a serious interruption, raised the average of active stocks to nearly $90 per share.

It was at this point, when the highest prices yet recorded in the stock market were current, that a refunding measure known as "the Carlisle bill" passed the Senate. The especial provision which gave this bill its name and its singularly destructive influence was one offered as an amendment by Mr. Carlisle of Kentucky, who sought to prevent what was considered by many an abuse of power by the National banks, namely, their surrender of circulation and withdrawal of bonds at times when the state of the money market rendered the circulation excessive and unprofitable. The bill was passed without very careful consideration, and it provided that from and after its passage no bank should have power, as before, to withdraw the bonds deposited as security for circulation by placing with the Secretary of the Treasury legal tenders for the redemption of its outstanding notes. The bill also proposed a refunding of the 6 per cent

bonds of the United States in 3 per cents, with provisions apparently intended to force the new bonds upon the banks which had previously held those bearing the higher rate of interest. Many of the banks took alarm at once, reasoning that the enactment, if signed by the President, would deprive them of the control of their securities and capital which they had previously enjoyed. Within a day or two several deposited money for the redemption of their notes and withdrew their bonds, and their example was quickly followed by others, so that in a very few days a contraction of more than $17,000,000 in the circulation resulted. This contraction, as was natural, caused a corresponding contraction of loans and a sudden and severe stringency in the money market, and the panic in stocks which followed was one of unusual severity. Within one week, from the day before the passage of the bill by the Senate until it became known that the measure would certainly be defeated by the veto of the President, the average price of active stocks dropped from $89.11 to $79.37, and the fall in the value of fifty-seven securities of the par value of $1,226,767,303, including most of the same stocks, was no less than $143,753,700. Including bonds and the less active stocks, it can be said with safety that the decline in securities caused within a single week by the passage of this measure was not less than $200,000,000.

It was noteworthy and by every one was noted that this great decline was not caused by speculative manipulation. To dangers of that sort investors had been repeatedly introduced already. But this event forced them to become acquainted with a new danger, namely, that mistaken legislation by Congress, though prompted by the best motives, might at any time destroy in a single week one-eighth of the value of their securities. The powers of Congress had not increased; the facts had not essentially changed. But the events brought the danger so forcibly to the knowledge of

investors that they had a most powerful influence upon public opinion. A great number of new investors, here and abroad, who had not been accustomed to the holding of American securities prior to 1878, were now taught by sharp experience that they could not always count upon financial legislation of the wisest and most favorable character. They were taught, too, that prices of many stocks had advanced so far that any important change in the state of the money market, or in the condition of trade or of financial prospects, might bring about a sudden and severe decline. The memory of this violent shock remained, and influenced the minds of investors and speculators, long after its immediate effects had passed.

March opened with the veto of "the Carlisle bill" by President Hayes, and with the inauguration of President Garfield, who quickly gave evidence that the financial policy of the Government would not be changed during his administration. This gave strength to a market otherwise still tending toward weakness. Importations of gold amounting to $7,000,000 also helped, and the exports of domestic products exceeded the imports by $24,000,000. The banks were rapidly regaining their strength. But the weather in the Northwest had been exceedingly unfavorable. It was already known that some injury had been done to the crops, and that the immediate effect upon railroad earnings had been considerable, though by operators for a decline it was naturally exaggerated. They sold heavily of stocks that they did not own, and thus gave opportunity to the strong operators who were still heavily loaded with stocks to force prices up again with rapidity. Early in April, too, came the announcement of a remarkably simple and very wise plan for refunding the 6 per cent. and 5 per cent. bonds then about falling due. Secretary Windom gave notice that the bonds would be redeemed on a certain date upon presentation, but that the holders, if they chose, could have them extended at

the pleasure of the Government bearing only 3½ per cent. interest. The announcement met with immediate success. In a few weeks not less than $580,000,000 of 5 and 6 per cent. bonds were thus by consent of the holders extended at 3½ per cent. interest, with the right on the part of the Government to redeem them at any time. This magnificent operation, which splendidly completed and crowned the refunding process and established the credit of the Government on the very highest basis, gave the utmost confidence to operators for an advance in prices. They were not slow to take advantage of the opportunity, and the rise continued until the 26th of May. The influence of this financial operation upon foreign investors was very great, and the demand from abroad for American securities became larger about this time than it had ever been. Meanwhile the increase in the earnings of the railroads was about 25 per cent., in comparison with the earnings of the previous year. A wonderful activity was observed in all branches of industry and trade, though by not a few it was regarded with some alarm, as being probably the result, in some measure at least, of the great inflation of currency which had taken place within three years. One journal called attention to the fact that the supply of gold in use had increased no less than $234,000,000 since January 1, 1879, according to the official report of the D.rector of the Mint, and then remarked: "One can hardly expect to see speculation collapse in such a medium for supporting its life as this affords." Yet the collapse was not far distant. It was noticed, also, that new stocks were placed upon the market in enormous amounts. The zeal of investors and of speculators was stimulated by many important operations, such as the purchase of the East Tennessee, Virginia & Georgia and the Memphis & Charleston by a syndicate headed by Colonel Cole, the settlement of differences in the Northern Pacific Company, so that complete harmony with the Oregon Navigation was secured,

and the ratification by the stockholders of the lease of the Missouri, Kansas & Texas to the Missouri Pacific. Under such influences the market continued to advance steadily until the average of sixty average stocks on the 26th of May was $92.15, against $78.92 at the end of the year 1880, and $89.11 in February before the break caused by the passage of "the Carlisle bill." As an indication of the temper prevailing at that time, it may be remarked as a curious fact that on the 28th of May, just two days after the highest prices for the past generation had been made, one of the most conservative and sober financial journals in the country, the "Financial Chronicle," editorially remarked:

> There is much talk, as there has been after each previous advance, of the tumble which must necessarily follow. But there is such a basis of real strength for higher market values of good properties that the lighter weights are carried along without material reaction. A fresh advance only raises anew the question where and when will it end? The bolder operators laugh in reply, while the more timid realize their profit. But the latter quickly buy in again as the market begins to run away from them. The truth is, first-class properties have been very largely withdrawn from the street and locked up by investors. Hence every speculative sale makes it more difficult to obtain them to cover, while the purchase pushes up the price. Besides that, the whole community seems to have money to invest and are eager buyers on any decline in values. This fact and the continued increased earnings—not quite so universal but general—the excellent and constantly improving business in progress in almost all departments of trade, the promising outlook for the crops and the abundance of capital offering in the loan market, seem to furnish every favorable condition necessary for a buoyant market.

These remarks are quoted as an evidence of the mistaken expectations formed at the time, even by the soundest and most prudent men of the street. A glance at the diagram on page 92, in which the black line records the course of prices of active stocks for thirteen years, will show how completely the most prudent observers were misled in May, 1881. For it will be seen that the slight decline, which had commenced on the very day before this statement appeared,

continued from that day for fully three years without important recovery, and that prices have at no time since been as high as they were when these expectations were entertained. But it would be unjust to infer that they were wholly unreasonable. As we shall see, there was in fact good reason to believe that, but for the interruption of events which could not then be anticipated, the market would probably have continued to advance for some time longer. The condition of the crops was not indeed quite as favorable as the remarks quoted would indicate, but by far the greater part of the injury sustained, it afterwards appeared, was the result of the prolonged drought which began about the 1st of June. The community did seem to have an unlimited supply of money to invest, although even at the time these remarks were written the supply of available funds appears to have been substantially exhausted by the enormous sales of new securities to be delivered in the near future. Hence, just at the turning point many of the ablest and most conservative people, who had not been carried away by enthusiasm during all the upward rush of prices for nearly three years, were moved to speak even more confidently of the future than the journal above quoted.

In reviewing this marvellous advance in prices, which lifted to $92 per share the same stocks which had sold in 1877 at less than $23 per share, so that the investment of $100,000 at the average prices of April, 1877, would have been turned into just $400,000 at the prices of May, 1881, it is not to be ignored that the movement had a broad and solid basis in a wonderful improvement in the real condition of business and industry. The advance in the amount of exchanges, in the products of manufacture, in the yield of the principal crops of agriculture, in the exports of staple products, in the payments of debts, public and private, and in the traffic of the railroads, had been very large indeed. But meanwhile the circulation of paper representatives of

wealth had been increased far more than the wealth itself. The amount of securities outstanding had been increased beyond all measure. The managers of the Stock Exchange felt that it was not their business to guard the public against the excessive manufacture of securities, or against the issue of securities for the construction of railways not required by the condition of business. At the same time it is right to observe that it was not then the fact that the railroad mileage had increased faster than the traffic of the railroads. The error was in supposing that the same increase must continue indefinitely, and in contracting for securities which were obviously designed to provide for an increase of railroad mileage far beyond the needs of business, unless business should continue thus to increase. The mileage of railroads in 1877 was 77,112, and in 1881 it had risen to 101,949, an increase of 25,837 miles in about four years, or 34.9 per cent. But it also appears that the aggregate movement of freight on seven of the great railroads, the Pennsylvania, the New York Central, the Erie, the Lake Shore, the Fort Wayne, the Philadelphia & Reading, and the Chicago & Northwestern, had increased during the same time from 7,547,000,000 tons one mile in 1877 to 13,265,000,000 tons one mile in 1881, or 75.8 per cent. Thus the increase in actual traffic on the principal roads was more than twice as great as the increase during the same period in railroad mileage. This increase, moreover, was not confined to either line or system of roads, though much smaller on the Philadelphia & Reading, the only great coal-carrying road included, than on either of the others. The following comparison of the ton-mileage of the different roads for 1877 and 1881, with the percentage of increase for each road, will serve to show in a measure how vast was the expansion of the business served by some of the more important trunk lines and their connections, which formed the chief basis of the advance in prices so far as that advance had any sub-

stantial basis in actual changes for the better in the business of transportation by rail:

	1877.	1881.	Per cent
Pennsylvania	2,097,000,000	3,701,000,000	76.5
New York Central	1,620,000,000	2,647,000,000	63.4
Erie	1,114,000,000	1,984,000,000	78.1
Lake Shore	1,080,000,000	2,021,000,000	87.1
Fort Wayne	440,000,000	1,044,000,000	137.2
Reading	711,000,000	887,000,000	24.7
Northwestern	485,000,000	981,000,000	102.3
Total	7,547,000,000	13,265,000,000	75.8

The increase of tonnage was not accompanied by a corresponding increase of earnings, it is true, because the roads were compelled by competition with water routes and with each other to accept lower rates. But it is nevertheless the surest measure of the growth of the business upon which the prosperity of railroads depends. Nor is there reason to doubt that the increase upon many other roads during the same period was fully as great as the increase upon these old and long established lines. Thus the increase in railroad mileage during the years under consideration would have been excusable but for the facts that, first, the roads had been generally bankrupt in 1877, and it was not desirable to reduce them to the same state again, and, second, the traffic in 1877 had been abnormally low, and the increase upon recovery from that unnatural state could not reasonably be expected to continue at the same rate.

But the advance in the prices of stocks, it will be observed, was far beyond the increase in amount of traffic, even if all the railroads in the country had gained as much as the trunk lines named. Probabiy all did not. But if so, there was still no basis for an advance of 300 per cent in the average price of all active securities. It should also have been remembered that the roads were increasing their debts and were adding new and less profitable mileage year by year

and were incurring enormous obligations besides on account of connecting lines.

The greatest part of this inflation of prices, it is now evident, was due to the state of the currency and the financial operations of the Government. The expansion of the currency during the same years, as will hereafter be shown, was from $727,000,000 to $1,184,000,000, or more than 62 per cent. Only those who suppose that dollars cannot move faster and perform more operations at one time than at another will conceive that there was occasion for any such increase. The effects of this enormous inflation of the circulating medium will hereafter be considered, and it will be seen that it was the chief cause, not only of the unnatural advance in the prices of products in 1879, but also of the wild speculation in products which afterwards brought disaster to legitimate business and industry. It not only caused the surprising advance in the prices of stocks, but also gave great speculators the power to secure that artificial control of prices which afterwards destroyed the confidence of investors in the market for securities. Monetary inflation was therefore the chief cause, both of the extravagant advance and of the subsequent collapse.

VII.

Speculation Breaks Down.

If asked in May, 1881, what had caused the great advance in stocks, almost any operator would have answered, "Windom and Europe." If asked about the end of June what had caused the decline within thirty days, almost any operator would have answered, "Vanderbilt." Each statement would have been true. But each would have concealed behind it a greater truth. Secretary Windom's success in his wonderful refunding operation, and the large purchases of American securities on European account, were in the main both due to the unparallelled growth of prosperity in the country. Solid investors had not been buying for years, and taking stocks away from the market, merely because foreigners were buying. In like manner, behind the war of rates which Mr. Vanderbilt brought about in the summer of 1881, was the fact that too many competing lines of railway had been brought into existence or projected, as a consequence of the power which operators had gained to manufacture both securities and prices at pleasure. The prices of many securities had been advanced more than the circumstances justified, and as to the character of securities there had been too little discrimination. A reaction at no distant day was inevitable. But it need not have come when it did, and it certainly would not have been so disastrous to railroad properties, had not railroad managers themselves commenced it by manipulation to force down the prices of particular stocks.

In May and June few circumstances appeared to foreshadow an immediate decline, though it was seen that the prices of some securities had been advanced excessively or without reason. The exchanges indicated that the amount of business between the banks in all parts of the country was

very large, and they had never been equalled in amount, even after ample allowance for the transactions connected with speculation. It was true that about twenty iron furnaces had stopped working in May, but it was also true that about that time in the year many usually stop for repairs. It was true that the National Millers' Association had sent out statements reporting a great decrease in the yield of wheat. But the millers had been in the habit of issuing gloomy predictions in the spring, for they usually have not a little flour to sell in May and June, and the public habitually received their estimates with large discount. Subsequent events proved that the reports of injury to wheat prior to the drought in June had been enormously exaggerated. It had been said in May that the yield of wheat would not be more than 320,000,000 bushels. Afterward came the severest drought ever known, which did in fact cut down the yield below what it otherwise would have been by 100,000,000 bushels or more, and nevertheless the final yield after all this subsequent damage was 380,000,000 bushels—much larger than had been estimated in current reports before the drought began. There had been some disturbance on the London Stock Exchange, for a day or two amounting almost to a panic, but it produced no results whatever on this side of the ocean, and its influence on the other side passed very quickly. The managers of railroads who were at that time speculating for a decline made the most and the worst of these and other unfavorable indications. But one cannot study the history of 1881 without coming to the conclusion that, if the crops had proved as large as they were in June with reason expected to be, if President Garfield had lived, and if the railroad managers had not quarrelled on purpose to depress prices, a further advance in the better securities might have been realized. The inflation of currency continued, and favored such an advance. Business was of great magnitude and largely profitable, and so continued even

after the partial failure of crops, for it was in many respects both larger and more profitable in 1882 than in 1881. In the railroad business a reaction could hardly have been delayed more than a year or two, because contracts had already been made for such construction as to ensure disastrous competition for important lines The expansion of speculative operations in products was also an insuperable obstacle to long-continued prosperity ; speculation could not have grown in volume and in audacity much longer without prostrating legitimate business, and yet its expansion could not have been checked without a reaction severe and long continued. Thus causes were in existence to render an ultimate reaction inevitable, and not very far distant. But it came in 1881, primarily because railroad managers themselves began it.

Within two months after the reasons for expecting a great advance in prices were recounted by the most conservative observers, the average of sixty active stocks of the new list had dropped from $94.40 to $83.29 per share, or 13.3 per cent. Early in June some depression in the market was explained by rumors that great operators had been selling very heavily. Yet no large depression then occurred. Day by day it was predicted that Europe would at once send back enormous blocks of stocks. But the stocks did not come. The silver question was used by some to excite apprehension, but how distant the danger was subsequent events have shown. In reality the sole cause of a change in the tone of the market prior to the latter part of June was a change in the speculative position of railroad managers, for their change in position was the only cause of the war of rates in which they then engaged. It may be safely affirmed, in the light of all subsequent events, that the strife about rates in 1881 would not have occurred, if some of the managers of railways, who had usually been large holders of the stocks of roads which they managed, had not previously sold

more than usual, or had been able without loss early in the month of June to buy back the stocks sold. At the outset this war seemed to be much more violent within the walls of the Stock Exchange than anywhere else. It was called "a very civil war," and it appeared to be carried on much in the Chinese fashion, as if it were more important to make a loud noise than to hurt anybody. Even after it became more bitter, it was noticed, when the Fort Wayne loudly proclaimed reduced rates from Chicago to New York, nominally only 12 cents per hundred pounds, that nevertheless the rates to ordinary shippers were not really changed, and the primary object of many public announcements of low rates seemed to be accomplished when the prices of stocks were affected. If the object was not to hurt anybody, except the hapless investors who then were holding stocks which the managers wanted, the war was shrewdly conducted at the outset to that end. The investors, however, wanted to sell all the less, because they saw that the managers wanted to buy. But at a later stage this strife began to do serious damage to the railroads. Many attempts were then made to stop it. Meetings were held in vain, and Mr. Vanderbilt was appealed to with great earnestness by people who believed that he could end the contest in a day if he wished. Whether they were right or not, he did not end it, and the public generally held him chiefly responsible for its continuance and for the harm that it did.

Mr. Vanderbilt had indeed some excuse for irritation. His railroads had been losing in proportion of grain transported from the West, and the Erie and other rival roads had gained what his roads had lost. But he had known this when he sold stocks early in May and started on a trip to Europe. He could hardly have imagined that a long war of rates with a bankrupt railroad like the Erie would help the matter. Nor is he likely to have been ignorant of the report then everywhere current, that Mr. Jewett, President of the

Erie, was also "short" of stocks. The war between Mr. Gould's new roads and the Burlington and Quincy was not new in June, 1881; it had been coming to a head for months while prices were rising with marvellous rapidity. Moreover, Mr. Vanderbilt's policy for years, in regard to the management of his roads and the treatment of Western connections, had been such as to prompt many powerful interests to favor the building of new lines in opposition to his. He had seen this contest coming some time before, and had sold two hundred and fifty thousand shares to Mr. Gould and his associates at prices much lower than those which ruled in May, 1881. It would not be strange if he was irritated at an advance of thirty dollars per share after he had parted with so large a part of his securities. The organizations were already in progress which resulted in the building of the New York, Chicago and St. Louis, the control of which was afterwards purchased at large cost by the Lake Shore, and of the New York, West Shore & Buffalo, which has been to this day a cause of large loss to the New York Central. It is no secret that the building of either of these roads could have been prevented by a moderate expenditure, at any time for several months. It is perhaps a significant fact that the New York, Chicago & St. Louis, a road closely parallel with the Lake Shore nearly all the way from Buffalo to Chicago, was built by a company organized in April, 1881, and in the very next month Mr. Vanderbilt was reported by his friends to have sold large blocks of stock at the high prices, and the war of rates began. It was believed at the time, both by friends and foes, that he had a double object, to cripple the new undertakings by a depression in the prices of railroad securities so serious that the building of the New York, Chicago & St. Louis and the New York, West Shore & Buffalo would be abandoned, and to buy back at lower figures the stocks of his own roads which he had sold to Mr. Gould and his associates and at later dates. It is not always proper

to put confidence in reports, even if universally circulated and believed, when they attribute to a man intentions which he disclaims. But it is strictly proper to call attention to the obvious fact that, if Mr. Vanderbilt had acted on the motives then ascribed to him, he would have acted precisely as he afterwards did for months, whereas, if he had been anxious at that time to sustain the stocks of the New York Central and the Lake Shore, the building of the new roads could have been prevented. Moreover, it was particularly noticed that when stocks were violently assailed by a powerful combination of speculators, who seemed to have at command unlimited resources, the stocks of Mr. Vanderbilt's roads were most frequently selected for the most savage assaults, his friends continually complaining because he would not support them. And when money by the millions was afterwards sent to Chicago to "corner" the grain market, to lock up grain, to prevent shipments, and so to help the operators for a decline in stocks, United States bonds bearing Mr. Vanderbilt's name were said to have been used repeatedly in loans for that purpose.

It is of less importance to this inquiry to determine by whom the work of depression was begun than to point out the fact, well known at the time, that it was begun by prominent railroad managers themselves, and that they acted for months as if their chief object was to buy at the lowest possible prices the stocks of the companies in which they took most interest. The war of rates could not otherwise have begun, nor could it have been prolonged as it was, unless the managers of some of the trunk lines had been in perfect accord of purpose with the powerful combination of speculators whose agents openly boasted, when New York Central was selling at 150, and Lake Shore at 135, that the stock of the Central would certainly sell below 90, and the stock of the Lake Shore below 70. What ground these men had for a belief then apparently so surprising it is difficult

to say. As to the speculators who were not railroad managers, their desire for frequent changes in the market is easily understood. The genuine speculator is not contented with an advance in prices from 10 to 110, but he wants the price to move from 10 to 40, and then from 20 to 50, and then from 30 to 60, and so on, in order that, instead of gaining $10,000 on an investment of $1,000, he may make $38,000, more or less, on the same investment, realizing profits as the game goes on. The advance from an average of 80 in February to an average of 94 in May was enough to invite realizing sales by speculators. Moreover, great blocks of new and comparatively worthless stocks had been lifted and sold out to a confiding public, and it was now necessary to depress the market in order to gather up a new supply, upon which the same operation could be repeated. Accordingly there were both wars and rumors of war for months.

The danger incident to all operations with loaded dice is that the intended victims may come to understand the game. There is also the danger that there may come such unexpected interruption as to break up the game altogether. The depression which the operators who held the most of the stocks in the street deliberately began in May, 1881, has lasted four years, and has sent some of them to the bankrupt courts, partly because their plans were interrupted by unforeseen events, and partly because the public came to understand the game and declined to be operated on any longer. The first in importance, of the external interruptions which took the market from the control of these speculators, was the great drought, which surpassed any other on record in extent and duration, and which probably cost the country 1,000,000 bales of cotton, 50,000,000 bushels of potatoes, 100,000,000 bushels of wheat, 500,000,000 bushels of corn, and injured other crops severely. The consequent reduction in the number of living animals enhanced the cos of food to all consumers more than two years. At first, be-

cause "wolf" had been cried so often, the reports of disaster were but little regarded. The circumstance that the millers and others had been much more zealous and able in imagination that year than ever before, and much more startling in reports of damage done during the winter, and that the reports from such sources had been more thoroughly discredited than usual by subsequent information, naturally led to the belief that the accounts of injuries in June were only new devices to serve the same speculative interests. But before July had fairly begun it was known that wheat was suffering real and serious injury, in place of the pretended injury reported earlier in the year. The loss in wheat was only a small part of the year's losses. The worst of the injury was done still later, even to the wheat crop, and especially to other crops. But serious injury to wheat came to the knowledge of the country in July, when many speculators had become most anxious to lift up the prices of securities, which then threatened to drop too far for the comfort of speculators of any sort.

The most startling interruption of all business calculations came on Saturday, July 2d, when President Garfield was assassinated. Within a few hours prices dropped over $5 per share, or nearly 6 per cent., during the short session of a single day, declining from about $94 per share to about $88.60 per share, and had there been any market on either of the next two days the immediate decline would have been much greater. But on Sunday, the day following the assassination, and on Monday, July 4, the reports were most favorable, and when the market opened on Tuesday it was with strong hope. From that time for many weeks the pulse of the market was the pulse of the wounded President, and the prices of railroad stocks rose and fell, day by day, as the prospect of his recovery grew brighter or faded. It is not difficult to appreciate this dependence of the markets upon the condition of the President, when it is remembered that

the last and most surprising achievement in restoring the public credit had been the work of Secretary Windom, under President Garfield's authority, and it had produced a more powerful impression upon investors at home and abroad than any other event since the close of the civil war. The question was constantly asked by everybody, whether a transfer of executive power to Vice-President Arthur, who had represented a political element hostile to the President, would not involve a great change in the financial policy of the government. The position of President Garfield as to the public debt, the tariff, the banking and currency and silver questions, was known and had entered into all calculations regarding the future. But the opinions of Vice-President Arthur were on many points unknown, though on the tariff question he was known not to be in entire accord with the majority of his political associates. Nor should it be forgotten that, prior to Mr. Arthur's accession to the Presidency, every Vice-President in the history of the country who had succeeded to that post had broken with the party by which he was elected and had made alliance with its antagonists. There was a vague fear, too, that the shot of Guiteau was the beginning of such factional strife and such resort to violence as had wrecked other Republics in the old and the new world. It was gravely asked whether the succession of a bitter antagonist of President Garfield under such melancholy and exciting circumstances would be peacefully endured. If these doubts and fears now seem absurd, in the light of the calm, orderly and generally acceptable administration of the government which followed President Garfield's death, it is but the truth to say that they filled the thoughts of many sensible and sober men during those weary months of uncertainty as to his fate, and had an important influence on the action of thousands, not only abroad, where distrust of the stability of the Republic was natural, but in this country also.

The immediate effect of this great shock, however, was not so great as its indirect effect. It broke the spell which nearly three years of wonderful prosperity and an advance of 300 per cent in prices had thrown over the spirits of men. At once many, who had not a doubt on the afternoon of Friday, July 1st, began to ask themselves as calmly as they could what reason there really was for expecting an advance or a decline in prices. Then for the first time the fact was fully appreciated that the actions of railroad managers themselves had been the chief and almost the only cause of the decline in June, and that the speculative director had again been waging war on the investor. It is not strange that distrust rapidly increased. Previous spasms of depression, engineered in like manner by speculative directors, were remembered. Thorough indignation with many gave support to the counsels of caution. The investors began to sell. The public began to withdraw from the market for securities.

When men looked to the condition of properties, moreover, they saw that work had actually begun on many parallel or competing lines of the utmost importance. They saw that a line close to the Lake Shore from Buffalo to Chicago could not help that company; that another parallel to the New York Central from New York to Buffalo could not fail in the end to divert considerable traffic, and that the extension of the Lackawanna from Binghamton to Buffalo would inevitably damage the Erie. They saw that all over the country roads were being multiplied in the same way, and some of them with no regard for the actual needs of business, but in order to force older lines to surrender a part of their profits. As long as these enterprises had been on paper only there was little alarm. It was presumed that if the older roads were in any real danger their managers would effect some compromise and prevent the threatened competition. But in July it was seen that several of these enterprises had

passed the stage of preparation, had secured at least a considerable part of the money required for building, and had actually begun the construction of the new lines. It was seen, too, that the management of many railroads had fallen into the hands of powerful speculators, who were not accustomed to direct properties without regard to their private interests in stocks. It was seen that the condition of many corporations had been suspicious, and that appeals to the chicanery of law to cover wrong-doing had become painfully frequent. All these things led investors to sell, and hastened the withdrawal of the public from a market which was now considered no longer a faithful representation of the deliberate judgment of the country with regard to securities.

But this was not all. The general state of business was for the first time seriously examined, and it was seen that there were many reasons for distrusting the future. The crop news had been steadily growing less favorable, and, regarded now with an earnest desire to ascertain the truth, it soon convinced men that serious losses were inevitable. That the traffic of the railroads would be affected, that the purchasing power of a vast number of farmers would be reduced, and that manufactures would thus become less profitable and trade less active, was readily foreseen. It was considered, too, that speculation in products had played mischief in the country, had enormously increased the cost of production and of living, and had made the people peculiarly ill-prepared for any season of enforced economy. It was felt rather than seen that this season of wild speculation must have involved no one could tell how many men and banks in debts or defalcations, which a period of pressure would bring to light. It was seen that the silver business threatened in the end to disorder the currency of the country entirely, and that the political changes resulting from the accession of President Arthur, with Congress divided as it was, would be likely to bring about a speedy

agitation of the tariff question with consequent uncertainty for manufacturers. Thus hour by hour the public became less satisfied with the prospects, and sold more largely of securities, and more completely withdrew from the market. These influences were not fully developed at once. The thoughts which influence one man to-day, he imparts to another to-morrow, and both give them to others the next day, and so with increasing force the ideas spread throughout the whole community. It was so after the shock in July, 1881, caused men to consider the situation soberly. Week by week the more disheartening features of the situation became more generally understood. After a time, nearly everybody about the street was thinking and talking of the the new stocks and bonds, said to be $700,000,000 in amount, which had been placed on the street within a year, of the many competing lines which were being constructed, of the partial failure of the crops and of the bad business to come after. In time it was recognized that speculation in stocks had played too large a part in the business of the country; that it had not only disturbed the finances, and involved the banks, and stimulated the creation of too many railroads, but had manipulated markets of all sorts, had manufactured new securities, had debauched legislatures and courts, disturbed legitimate business, and wrecked lines of transportation.

When the assassination became known, July 2nd, the market was divided into two powerful camps. Mr. Gould appeared to be at the head of the combination of cliques and of capitalists by which the stocks of most of the important roads were controlled. On the opposite side was a powerful combination of speculators with whom Mr. Vanderbilt appeared to be acting, and not a few other railway managers whose interest for the time seemed to be rather to depress than to support securities. The market had been attacked repeatedly in the month of June with great energy,

but had been so strongly sustained that prices had yielded but little. At the lowest point touched during the month, on Tuesday, June 28, the average of active stocks was still $90.24, only $4.16 below the high water-mark of May, and on Wednesday and Thursday the market rallied so rapidly that the average of closing prices for the month was $92.42. It was the common understanding that Mr. Gould and those who were acting with him had supported the market intending to make a strong upward movement in July, with the aid of the investment purchases which are usually to be expected in that month after half-yearly settlements have been made and interest and dividends paid. When the violent shock came on Saturday, July 2nd, all who were greatly interested in securities found it necessary to give the market what support they could. Probably all the cliques in control of different stocks were obliged at that time to add very heavily to their holdings in order to prevent a complete collapse of prices. During the month of July the sales by investors, the withdrawal of the public from the street, and the disheartenment on account of the business outlook, gave the upper hand to the operators for a decline, and the average of active stocks was depressed by the 27th of July to $83.29. Nevertheless those who were engaged in supporting prices did not lose confidence nor abandon their undertakings. They had against them the influence of the railroad managers who were engaged in the war of rates, but they had on the other hand an important advantage in the fact that the speculators, who persisted in selling largely stocks that they did not own, could be attacked in detail and forced to buy first one stock and then another in order to avoid heavy losses. In this way the market was adroitly managed throughout the season. The first important operation of the summer was the great "corner" in Hannibal & St. Joseph common stock, by which the price was rapidly advanced to 350. But by the end of August the average of prices had

been raised less than half a cent on the dollar, and meanwhile the uncertainty as to the fate of the President continued. In September two enormous speculations came to a head, the great cotton corner at Liverpool and the oil speculation here. During that month, also, President Garfield died, but his successor was quietly inaugurated, and assumed the duties of his office in such a manner that apprehension of a serious change in the policy of the Government was soon allayed. Thus by the end of September the average of prices had advanced to $84.35. In the next month extraordinary efforts were made to break the market, not only by direct assaults upon prominent stocks, but by creating a stringency in the money market and by locking up grain at Chicago. Immense sums of money went from this city to sustain the operations in grain at the West, and a double purpose was thus served; the stringency of money here was intensified, while the shipments over the railroads were checked. It did not matter to the speculators engaged in these operations that the exports of products were also checked, or that the tightness of the money market seriously interrupted industry and legitimate trade. But, notwithstanding formidable combinations to depress the price of securities, the results attained were for the time very unsatisfactory. If some stocks were depressed, others were rapidly and largely advanced, and the market was generally supported with a strength which, considering the constant emptying of stocks by investors here and in Europe, was regarded as most surprising. For the time, notwithstanding the power of the railroad managers to continue their war of rates, and notwithstanding the advantages given by the partial failure of the crops, the combination met with defeat. Several firms failed at Chicago; a break of 15c. occurred in the price of wheat; the blockade was swept away and products began to move in large quantities, and the prices of stocks, though temporarily depressed, were less than half a

cent on the dollar lower at the end of October than at the end of September.

Presently, however, the difficulties of those who were struggling to stem the tide were seriously increased by the beginning of failures among the banks. In November the Mechanics' Bank of Newark startled the country by a disastrous failure in which other banks were involved, and during the same month the Pacific Bank and others at Boston were compelled to suspend because of the operations of the speculator, Weeks. These events caused not a little distrust, and yet were looked upon as sporadic cases, rather than the beginnings of an epidemic. It was supposed in each case that the reckless speculation in which a few individuals had been engaged was exceptional in its character, and that other banks would not be found to have been involved in the same manner by other speculators. The events of the past three years have made it only too well known that the few failures in November, 1881, were but the skirmish line of an army of disasters, defalcations and frauds, which the wild speculation of previous years had engendered, and which the reaction in its progress was certain to disclose. The collape of the Mechanics' Bank of Newark, and the failure of Grant & Ward and the Marine Bank of New York, were in the strictest sense results of the same disorder, and it was more than suspected before the year 1881 had closed that many other banks in various parts of the country had become hopelessly involved during the years of speculative excitement.

But the immediate effect of these disasters was once more to compel the operators and the cliques then supporting prices to put forth their strength still more resolutely. It was fortunate for them that a great army of small traders, following in the wake of the combination of operators for a decline, had contracted the habit of selling stocks recklessly at the first whisper of any great disaster. Those who were

supporting prices had only to take everything that was offered by the speculators and by the public, and then to force those who had sold property which they did not own to buy it at an advance. The month of November witnessed such a sharp turn of the market against the traders, and the average of prices rose during that month $2.40 per share—closing at $86.34. But this was the last important effort for the year. When the struggle was over it was found that the public had not been induced to buy stocks again, as it had done after every other decline for years until the first of July, but had, on the contrary, seized the opportunity to empty more of its securities into the street. The market became heavy with the increased load; the attacks of speculators for a decline were renewed; the evil effects of the speculation in grain upon the foreign trade of the country became more fully appreciated; the war of rates was continued, and the year closed with an average of prices lower than had been touched at any time since the first few days in January, namely, only $81.98.

In 1882, in spite of the depression with which the previous year had closed, the first two weeks of January were weeks of confidence and a vigorous advance in prices. The purchase by Mr. Gould and associates of a controlling interest in the St. Louis & San Francisco Railway was an event of importance at this time. By the 14th the average prices of stocks had risen to $84 44, and there was undoubtedly a strong hope behind this advance that the investment of money received in yearly settlements would not only relieve the market from much of its load, but start a lasting upward movement in which the public would at length take part. When these hopes faded, when it was seen that even the usual January re-investments were remarkably small, that the investors were rather inclined to sell than to buy as long as some railroad managers continued to use both the market and the railroads for the plunder of the public,

and that the number of outside participants in speculation was not increasing but diminishing, the disheartenment became very great. Prices ran down rapidly until the last week in February, then recovered a little, when it was hoped that the trunk-line war would be settled, and then rapidly declined again with heavier sales and a greater appearance of general weakness than had been seen for a long time. On the 13th of March the gloom had become so great, the sales of stocks by investors had become so heavy, and the efforts to break down the credit of prominent supporters of stocks were so audacious and shameless, that Mr. Gould resorted to an extraordinary expedient. He called in some of his friends and exhibited to them, according to their reports, certificates for 230,000 shares of Western Union, 120,000 shares of Missouri Pacific, 60,000 shares of Manhattan, 200,000 shares of Wabash common, and $10,000,000 in bonds of the New York and Metropolitan railroads and Wabash preferred stock. The certificates were in his own name, in the main undefiled by the pen of an endorser or the pin of a money-lender. He offered also to show $30,000,000 in bonds of various roads. This was considered conclusive evidence, not only that Mr. Gould was enormously strong financially, but—at that time a more important matter—that he at least had not taken part in the efforts of some other railroad men to depress prices during the previous year. The irreverent youth of the street laughed at "Mr Gould's spring opening," but the effect produced on public opinion was for the time very great. Presently it was seen that there had been concert of action. Mr. Vanderbilt gave the public a declaration in favor of higher prices, and it was announced that the railroad war had been completely settled. Then followed what is known as "the peg campaign," in which there was not only no effort to conceal the manipulation by great operators, but the upward movement was allowed to derive most of its strength from the plainly announced

artificialness of the operation and the boasted indifference of the manipulators to public sentiment or public support. Orders were issued for each day, it was openly boasted, to "put the pegs" at a certain point in each active stock, and to buy all the stock that could be bought at that price, no matter how much. Followers were kindly permitted to know, day by day, how much higher "the peg" was to be placed on the day following, and having found the predictions correct for several days, the weaker multitude of the street began to place in these announcements the same intelligent confidence which the country youth puts in the statement of the thimble-rig manipulator. It need not be doubted that, if the public had kindly responded by taking a satisfactory part in the movement, the entertainment would have been kept up for months until the operators had disposed of their great loads. But the public was ungenerously suspicious. It failed to see why the details of a future upward movement should thus be made public day by day, even by such eminent philanthropists as Messrs. Gould and Vanderbilt. When it was discovered that the "pegged" orders had resulted in the purchase of a larger amount of stocks than it was possible to sell privately under the cover of these orders during the same time, and that, in short, the public was again emptying stocks into the street, the "pegs" were suddenly pulled out on the morning of April 3d, and Lake Shore dropped $8 per share before some very capable brokers could execute their first orders for the day. Then followed a season of most absurd indignation against the chief operators. It was charged that they had sold all they could while inviting the dear public to buy. But the young person who can only be induced to bet on the marked card of three because he thinks he "has a sure thing" never has seemed to deserve much sympathy. The trouble was not that some such persons had lost, but that the market had at last become one in which the methods of thimble-

riggers were openly employed, and no others were expected to succeed. The decline which followed did not culminate until May 11th, when the average of prices of active stocks was only $71.15, a fall of 15 per cent since January 14th.

After this performance, the market remained lifeless for months. Just as a corner is expected to kill speculation in a particular stock, so the open display of the methods employed to move prices warned everybody to get out of the business. Nevertheless in July, when it became certain that the crops were to be very large, some genuine buying by investors began, and it was for months so carefully nursed by the operators that prices rose higher than in January. No break came until about September 15th, when the average of active stocks had recovered to $84.73. At that time, however, another decline began, and on this occasion it was generally supposed that Mr. Gould was the principal operator for a fall. The completion of the Lackawanna extension to Buffalo in September threatened a new competition, both for the Erie and for the New York Central, and, as the event proved, caused most embarrassing complications in all the subsequent negotiations of the Trunk lines. In the course of the month the stringency in the money market assisted materially to depress prices, and this was also attended by a war of rates among the Northwestern companies. The struggle continued until December 15th, and though it had been anticipated ever since the Chicago, Burlington & Quincy had completed its line to Denver earlier in the year, it affected the prices of stocks of grain-carrying and Pacific railroads. The development of great weakness in Denver & Rio Grande, because of the inflation of its stock and debts, was an immediate result of this struggle, and of the efforts made to wrest that Company from the Burlington alliance. The disclosure of a large funded and floating debt in the Louisville & Nashville, and the collapse of the Hannibal & St. Joseph which had been practically

unsaleable and dead since the corner of the year previous, helped to shake confidence in an advance which had been in a large measure due to the movement in a few new Southern stocks. The advance in Richmond & Danville, Richmond & West Point, and Louisville & Nashville had been sudden enough and large enough to materially affect the general average of prices, although by more prudent and sober men of the street it was regarded as a symptom of danger. When the collapse came in November more than one-fifth of the entire value of these new Southern stocks was quickly lost, and the general average for all active stocks fell a little lower than in May, reaching $70.34. From this time to the close of the year the market was comparatively inactive, though slowly recovering. But its average at the end of the year was only $72.27. Nevertheless measures of great importance had been announced during the latter part of the year, which were expected to add materially to the value of many stocks. The consolidation by lease of the Michigan Central and Canada Southern in November was one, and the purchase of the new "Nickle Plate" Road by the Lake Shore in October was another of still greater promise. The Northwestern, also, was thought to have gained greatly by securing the control of the Chicago and Omaha. On the other hand, speculation was not a little influenced late in the year by the threat to extend the Hannibal & St. Joseph to Chicago.

Before considering the course of the stock market in 1883, it is necessary to fix attention on a few facts. Notwithstanding the depression in 1882, a greater number of miles of railroad had been built in that year than in any other in the history of the country. Most of the securities for this work had been sold in preceding years, but many were also sold in 1882. The building of 11,900 miles of additional road in any previous year, however the new roads might have been located, would have caused severe strain and in some

quarters serious loss. But the mileage built in 1882 was of far less consequence than the location of the roads built. Most of them were devised for the especial purpose of dividing or destroying the traffic of lines previously in operation. It can be said with truth that 30,000 miles of road might have been built in a single year, with much less harm to the railroad system of the country, than was done by the building of less than 12,000 miles in 1882.

But again, the market for securities had not only been greatly overloaded with the bonds and stocks for the creation of 30,000 miles of road in three years, but the securities of other companies which had little or no prospect of earning dividends had been pushed to very high figures during the speculative period, and placed in the hands of unhappy purchasers or still more unhappy lenders who had accepted them as collateral for loans. Moreover, as the review of the operations of the year has shown, the market had fallen quite into the hands of the professional operators. The public had withdrawn from it. The control of nearly all the active stocks had been secured by prominent operators or cliques, or had been forced upon them in their struggles for self-defense. The market had ceased to be an intermediary between buyers and sellers; it had become both the owner of most of the stocks, and the manufacturer of their prices. Under such circumstances liquidation was inevitable. There was nothing left in the market but to determine whether one set of men or another should shoulder the vast losses involved by the operations of previous years. All were trying to get out of stocks, and to evade as much of the loss themselves as possible; all were agreed, therefore, whenever there was opportunity, to lift prices in order to induce the public to buy; but it was the aim of each and every one, without exception, to sell soon enough himself to leave the load resting on somebody else.

Hence the year 1883 opened under circumstances which, if

rightly understood, made a decline in prices inevitable. It did not matter that the crops of the previous year had been remarkably large, and that the railroad traffic was large beyond all precedent. It did matter that the railroads at the beginning of the year were at peace, and through most of the year were enjoying the largest earnings ever known, so that a larger average of dividends was paid in 1883 on the investment stocks than in 1881 or 1882, and the dividends on the active stocks were also nearly as large as in those years. It did not matter that the general condition of business during the first part of the year was by many considered hopeful, and was in fact so good that New York bank stocks rose to the highest average of prices ever known. The market had ceased to have any definite connection with the course of business, with the state of finances, with the earnings or operations of the railroads, or with any other condition which usually goes to determine prices in a free and natural market, always excepting the disposition of the public, so far as it still had left any stocks, to sell them at the earliest opportunity. But it was also worthy of notice that the speculative spirit, not yet dead in the country though much chilled by the events of the past few years, turned from the stock market entirely, as affording no longer a theatre for speculation, and devoted itself in a remarkable degree to operations in grain, cotton, provisons, and various other products.

Money was easy during most of the year 1883. The movement of coal, 31,200,000 tons of anthracite, was the largest on record, and immigration was also large. But in manufacturing unusual depression appeared, particularly during the latter part of the year. The number of failures was 9,184, out of 863,993 firms included in the reports of Dun & Co., averaging a little more than one per cent. and about one-quarter higher than in 1882. But the year opened in the stock market with the stagnation which the peculiar condition of that market would naturally produce. In January

and in February the prevailing tone was weak, though the highest prices of the year were closely approached January 18th, when the average was $76.14. In March, also, the stagnation was extraordinary, but because the money market was at times somewhat close, many holders, with a not uncommon perversity of disposition, reasoned that nothing but the monetary stringency prevented an advance, and were therefore persistent in holding until that stringency had passed. In April, when the money market became easier, prices rallied a little, but the supply of stocks from investors and from speculators who were determined not to be left in the lurch was soon greater than the market could bear. The highest price reached at any time during the year was April 13th, namely $76.40, a fraction above the average in January. Doubtless many operators took this opportunity to shift a considerable part of their load upon other dealers, and the general tendency of the market throughout the early part of the year was such that those whose circumstances obliged them to support particular stocks for their own defence were compelled to take into their own hands a very much larger share of the outstanding securities than they wanted. It was Hobson's choice; having so much already that a great decline meant ruin, these men continued to buy more, month after month, in vain efforts to arrest the decline, with a feeling that "one might as well be hung for a sheep as a lamb."

Presently the cliques began to collapse. In August the decline in Denver & Rio Grande, and in that month, September and October, the decline in Northern Pacific and the Oregon stocks, produced great depression of feeling and caused enormous losses. The failure of the Villard party was in some respects the most surprising event of the three years of depression. The Northern Pacific road had hardly been completed, with a great flourish of trumpets and with a costly celebration of the happy event by a grand excursion

to Montana, when the prices began to drop so fast that fortunes were lost in a single week by many of the distinguished guests. Not long afterward it was discovered that the system was really involved far beyond its strength. But in October the managers of the Northern Pacific and other stocks controlled by cliques, together with Mr. Vanderbilt and his associates, demonstrated their power once more by a tremendous upward movement in which those who had sold property which did not belong to them were made to suffer severely. The previous depression had been very great. From the middle of April to the middle of October, the decline in prices had averaged $16.20 per share, and the average price on the 17th of October, only $60.21, was low enough to offer strong temptation to the operators to bring about the "bear panic" and the advance which followed. But while the movement was completely successful for a time, and punished those who had speculated for a further decline with merciless severity, it failed to give opportunity of escape to some of the cliques or to many of the overloaded operators. The Northern Pacific people, especially, did not escape, as the subsequent failure of Mr. Villard disclosed. The advance lasted but a little while, and was quickly followed by a renewal of the general liquidation. This was hastened by the rupture of the pool of Iowa roads, and by the large losses reported in earnings of the Union Pacific and Northern Pacific. Under these influences the depression continued in December, so that the lowest average recorded at any time during the whole year was $60.05, on the last day of the year. If 1883 had not been followed by 1884, it would have been reckoned one of the most disastrous years in the history of speculation. But the harm done in that year was at the time to a great extent unrecognized. As was afterwards shown, it left the market completely overloaded with securities, the banks entangled and imperiled by bad debts and by connection with speculation,

many great operators impaired in credit, and many trusted officials concealing from hour to hour with increasing difficulty enormous defalcations. The tremendous losses sustained during the period of inflation and subsequent depression, and the rottenness which speculation had caused in many important institutions, had yet to be brought to light by the events of the year 1884, which have been already reviewed.

VIII.

The Course of Other Securities.

The active securities, the course of which has been examined for the entire period of thirteen years, 1872-1884 inclusive, represent by no means the whole body of railroad securities. In Table No. 10 in the appendix will be found a comparison of the prices of forty investment stocks, at those dates in each of the thirteen years at which the active securities reached their highest or lowest point. From this table it appears that the average price of these securities, which was $144.43 at the end of April, 1872, declined to $105.55 on the 7th of November, 1873, the point of greatest depression during that year in the speculative market. But this decline of 27 per cent. was proportionately much smaller than the decline in active stocks, which was from $69.03 to $40.58, or 41 per cent. During the next year both classes of securities rose, the investment stocks reaching an average of $111.71 on the 19th of May, 1874, but, unlike the active stocks, these continued to advance during the year following, and their average price October 19th, 1875, was $112.26. From that time for eighteen months the course of the inactive stocks was in sympathy with that of the more active securities, and the average price declined to $107.93, September 29, 1876, and touched the lowest point during the whole period of thirteen years, namely, $98.56, on the 23d of April, 1877. As soon as the great pressure, early in 1877, had passed, these stocks advanced, but relatively much less than the more active securities. On the 18th of October, 1878, the average had risen to $102.26. At this point, as the table already mentioned shows, a change of five stocks in the securities quoted is found necessary. The new list, quotations of which are continued from 1878 onward, averaged in price at the lowest point, on the 18th of October, $100.71. In comparisons hereafter made, allowance for this

change is reckoned by reducing the average quotations prior to 1878 in proportion to the difference at the point of change between the old and the new list, namely, 1.5 per cent. The averages each year, and the corrected relations of the two lists to each other will be found in tables on pages 171 and 172.

From 1878 onward the advance of this class of securities was steady and uninterrupted until the 26th of May, 1881, when the highest average was reached. The advance was gradual and comparatively regular, the average rising $14.38 in 1879, $18.80 in 1880, and $9.40 during the first half of 1881. With allowance for the difference in stocks quoted, the average price of the investment securities was but a trifle higher at the highest point in 1881 than at the highest point in 1872, while the average of the speculative stocks reached $94.40 in 1881, against $69.03 at their highest point in 1872. In the downward movement which followed, the investment securities manifested the same comparative steadiness. On the 25th of November, 1882, their average was $138.81, on the last of December, 1883, it was $137.29, and at the lowest point in 1884, June 27, it was $133.49. Reckoning the average for each class of securities at the lowest point in 1878 as 100, the investment securities rose to $142.28, while the speculative securities rose to $300.84. But the subsequent decline cut down the average of speculative stocks to $135.61, while the average of investment stocks was cut down to $132.54 at the same point in 1884, so that each remained from 32 to 36 per cent. higher than in 1878. Reckoning from the lowest point for railroad securities in 1877, the advance in the inactive stocks was about 48 per cent., while the advance in the speculative stocks was over 300 per cent.

At this point it is desirable to determine the relative importance of the classes of stocks represented by the two lists. The census report upon railroads of the United States gives the financial status of companies having stock outstanding amounting to $2,613,606,264. Of these railway companies,

fifty-seven are included in the list of active stocks, and the amount of stock outstanding for these companies, according to the census, was $1,127,096,534. In the list of investment or inactive stocks, thirty-six railroad companies are represented which had outstanding at the date of the census report stocks amounting to $314,753,821. Thus, the tables already published represent stocks of the two kinds amounting to $1,441,850,355, or 58 per cent. of all the railroad stocks reported in the census of 1880. But the remaining railroad stocks, amounting in par value to about $1,171,000,000, are of three classes: the rarely quoted investment stocks, mostly of small and safely managed railroads; the speculative stocks, which have been at times more or less active in speculation; and the dead stocks, which have either lost all value or were issued merely for voting purposes, and never had any real value, speculative or for investment. Upon examination, it appears that stocks not dividend-paying or earning, and yet not dead, amounting to about $200,000,000, are quoted on some of the exchanges. Examination of the census report also shows that, besides the roads already mentioned, no less than 240 companies, having outstanding stocks amounting to $270,199,239, actually paid dividends in the census year amounting to $16,436,915, and in addition a still larger number of companies, apparently over 300, reported earnings applicable to the payment of dividends during the year embraced by the census report, but did not report any dividends actually paid during that year. It is to be remembered that the railroad companies generally were at that time recovering from the great depression of previous years, and until after the satisfactory business of the years 1879 and 1880 very many did not resume the payment of dividends. It, therefore, seems proper to estimate that the inactive stocks of the roads which earn something, as well as the stocks of the 240 which paid something in that year, belong rather to the investment than to the speculative class. Adding these to one list, and the $200,000,000 of non-paying but not quite dead

stocks to the other, we have about $885,000,000 of inactive or investment stocks, against about $1,327,000,000 of active or speculative stocks.

But the tables given include, besides the railroad companies, the Pacific Mail Steamship Co., the Pullman Palace Car Co., the Quicksilver, Canton and Consolidation mining companies, and the Western Union Telegraph Co., and also the Second Consolidated Bonds of the New York, Lake Erie and Western, which have been treated as in their nature stocks rather than bonds. There are also to be added the stock of the Canada Southern Railroad, not included in the census, amounting to $15,000,000, and the following stocks of companies not reported in the census, though organized in that year or the next, Norfolk and Western preferred, $15,000,000; Oregon Transcontinental $15,760,000; Rochester and Pittsburg, $4,000,000, and Richmond and West Point Terminal, $3,000,000. Thus the list of speculative stocks actually embraces corporations which had outstanding in 1880, or at the earliest information obtainable of later date, stocks amounting to $1,292,212,674, and adding about $200,000,000 for the other stocks of like character, we may reckon that the speculative table represents stocks amounting to $1,500,000,000 in par value. The table of investment securities also includes, besides the railroad stocks already named, the stocks of four express companies, amounting in the aggregate to $47,000,000, the Pennsylvania Coal Co. $4,000,000, and the Cheshire Preferred, $2,100,000, making in the aggregate $367,853,821 of stocks represented in that class. Adding the others, not included in either list, which appear to have paid dividends or to have earned something toward a dividend in 1880, we have for investment stocks about $1,000,000,000.

But the railroad stocks represent less than half the actual investment of capital in railroads of this country. Nominally, the amount of stocks outstanding is nearly the same as the amount of funded debt; in 1880 it was about $220,000,000 larger. But a considerable part of the outstanding stock repre-

sents no actual investment of capital and has no actual value, while most of the bonds outstanding were sold for cash, and represent money actually expended in the construction or improvement of railway property. The amount of bonds outstanding in 1880 was about $2,400,000,000, and it has since greatly increased. In the computations hereafter, the amount of bonded debt is reckoned equal to the par value of stocks represented, namely, $2,500,000,000. In tables Nos. 11 and 12 of the appendix are given quotations of a large number of railway bonds, at the dates at which the active stocks reached their highest or lowest point in each of the past thirteen years. In the selection of such securities, however, great difficulty is found because of the constant changes made by refunding, or by issuing new bonds to pay off old bonds, or by changes resulting from reorganizations. Two distinct sets of bonds are therefore quoted; the first list, embracing 106, represents the securities of all the prominent railroads prior to 1878, and is selected with a view to avoid as far as possible the use of securities which, because they were near maturity, had ceased to be sought by investors. In the second list, table No. 12, sixty bonds are quoted for 1878 and each of the following years, and these are selected in like manner with a view to represent as fairly as possible the most important railroads of the later period. At the point of change the average value of the securities used for the later dates is $2.14 lower than that of the securities used for the earlier dates, and in the subsequent computations, therefore, allowance is made for this difference in earlier quotations. The average prices at the different dates, and the corrected relation of the two lists to each other, are shown in tables on pages 171 and 172.

It is found that the average price of all railroad bonds quoted prior to 1878 was $94.10 at the highest point near the end of April, 1872. It appears that the decline in these bonds during the panic of 1873 was relatively less than in the investment or the active stocks, as would naturally be inferred. At the lowest point in 1873 the average was still $82.86. But it is noteworthy

that from this point the average price of securities of this class increased constantly until the year 1877, and declined then but a very little, increasing afterwards without further interruption until 1881. On the 23d of April, 1877, when railway stocks were at their lowest point, the average of railway bonds was still $86.03, and at the same time the new list of bonds which are quoted from that time to the close of the record, averaged in price $88.17. The advance in these bonds during the following eighteen months was $6.38, or 7½ per cent., much greater than the advance in the investment stocks.

These comparisons indicate that at the time of greatest depression there was unshaken confidence in the fidelity of the important companies, and in the validity of mortgage obligations. But at a later period the decline in the average price of bonds was relatively greater than the decline in the price of investment stocks. Thus, having risen to an average of $118.44, May 26, 1881, the price of bonds declined during the three years following to $106.39 on the 27th of June, 1884, a fall of more than 10 per cent., whereas the decline in the average price of investment stocks during the same three years was about 7 per cent. This contrast brings to mind the well-known fact that the recent period of depression has been characterized by great distrust of the fidelity of railroad managers, and of the conduct of the courts when bondholders have found it necessary to appeal to the courts for the enforcement of their obligations. So far has this distrust extended that, as the tables have shown, in the year 1884 there was in many cases a most absurd disproportion between the prices of bonds, which in law and in the common understanding of earlier days represented a prior lien upon the property of the company, and the prices of stocks upon which no dividends were paid, and which, if legal obligations were strictly regarded, could only be considered absolutely worthless. The causes of this change in public opinion with regard to the mortgage securities of railroads will be hereafter considered.

It is instructive, also, to examine the change during the same

period of thirteen years in the prices of Government, State and city bonds. The compilation of proper quotations, however, is in this case a matter of difficulty. The Government bonds now in the market, excepting the currency sixes, had no existence whatever prior to the year 1878; the six per cent. and five per cent. bonds which then represented by far the greater part of the public debt, have now been wholly retired. Hence it has been found necessary to quote two distinct sets of United States bonds, one for the period prior to 1878, and the other for the later years. In table No. 13, in the appendix, are given the quotations of both classes, and the difference in average price at the point of change from one list to the other was only 27 cents on $100. Average and corrected comparative statements for Government, State and city bonds will be found on pages 171 and 172. The course of these securities, it should be observed, was governed by entirely different considerations from those which controlled the prices of railroad stocks or bonds. The rapid retirement of one class of bonds after another by the Government has at all times affected the prices in a peculiar manner. Whereas this evidence of the strength of the Government and of its determination to meet its obligations in good faith has constantly tended to enhance the price of securities which were not in position to be speedily paid, it has been equally potent on the other hand to depress the price of bonds the early payment of which was with reason anticipated. Hence the prices of these securities represent only at certain points the general temper of the market for investments. At points of great depression Government securities are thrown upon the market even more largely perhaps than any others of unquestioned value, because the holder can realize more nearly the price paid for them. In times of great prosperity, when profits are rapidly accumulating, the demand for securities of an unquestioned character soon exhausts the supply, and Government bonds, as well as other securities of that sort, are advanced beyond prices which a strict regard for the interest payable would

appear to justify. Thus the large sales of Government bonds in order to realize money needed to meet commercial and industrial pressure accounts for the decline of $4.47, or 4 per cent. in prices in 1873, and again for the larger decline of nearly $6 on the $100 from April 23, 1877, to October 18, 1878. To the same cause must be attributed the fall of over $5 on the $100 from the beginning to the middle of the year 1884. In the times of greatest prosperity, however, the average price of these securities was not quite as high as at the end of 1883, and it may be inferred that the withdrawal of investors from the market for other securities, and the growing distrust of railroad bonds, helped to create the especial demand for Government bonds toward the end of 1883, while the continued payment of the debt by the Government gave promise that within a few years the four and four and a half per cent. bonds would soon be the only Government securities of considerable amount outstanding. So far as the records of prices of Government bonds can be relied upon at all as an indication of the state of the market for investments, it is to be inferred that prices were lower about the close of 1878 than at any previous time during the period under consideration—a little lower even than during the height of the panic in 1873. But it is also to be inferred that the general demand for such securities was especially increased about the middle of 1881 and about the close of 1883.

The prices of city and State bonds, for reasons which have been explained, represent in some respects more correctly the general demand for investment securities. But the amount outstanding and still recognized as having any value is comparatively small; probably $200,000,000 will cover all the State bonds that can still be recognized as in any proper sense securities, and $800,000,000 all the city bonds. The prices which are given in table No. 13 of the appendix, show that there was much more sympathy with the course of active stocks in the market for State than in the market for city securities. Thus the average price of State bonds declined from April, 1872, to November,

1873, nearly one-sixth, while the decline in the average price of city bonds was insignificant. In the city bonds, too, there was a slight advance in the price from 1877 to 1878, while the average price of State bonds slightly declined. Both rose largely after 1878, but unequally, the State bonds making no advance during the first year, about 9 per cent. in the second, and 6 per cent. in the third year, while the city bonds advanced about 4 per cent. in 1879, about 10 per cent. in 1880, and 2 per cent. in 1881, gaining 16 per cent. in three years. As to the downward movement, also, the course of State bonds agreed much more closely with the course of other securities than that of the city bonds, for the latter rose 2. per cent. from 1881 to 1882, declined only about 1 per cent. in 1883, and scarcely half of 1 per cent. from 1883 to the lowest point in 1884 But the decline in State bonds from 1881 to 1884 was a little larger than the advance from 1878 to 1881, and was about 7 per cent. in the first year, 2 per cent. in the second year, and more than 5½ per cent. in the third year.

There remain to be considered two classes of securities which have been found to represent more closely than any other on many occasions the general condition of trade and industry. The course of manufacturing stocks during the year 1884 was certainly a better indication of the public prosperity as a whole than the prices of railroad or government securities of any kind. Next to these were the stocks of the banks of Boston and New York, which represented by their prices the activity and the realized or anticipated profits of commercial business. The comparison of quotations of New York banks, which is given in table No. 14 in the appendix, is rendered less valuable by the infrequency of quotations for some of the most desirable stocks in the table, but the prices at which such stocks were offered have been quoted in the absence of recorded sales, as the only available indication of the course of the market. It is well to observe at the outset that some striking incongruities which appear upon comparing the average price of New York bank

stocks with the prices of other securities, are clearly not due to any inaccuracy in the quotations, for the most remarkable feature in the history of the prices of bank stocks is that the advance after the first half of 1881 continued to the very end of 1883, so that the average of prices rose from $120.75 in 1881 to $132.37 at the close of 1883. Yet the quotations are more complete and embrace fewer points of doubt within these last four years than in any other years of the entire period. Not a few of these securities have steadily advanced in price, so that they were higher, even at the lowest point in 1884, than in 1881 when the prices of active stocks were highest. This was the case with no less than twenty-two of the stocks quoted, while five others were at the same price at the lowest point in 1884 as at the highest point in 1881. Thus less than half of the whole number were lower in price, and, notwithstanding the failure of several banks in the list, the average in 1884 was $2.66 higher than on the 26th of May, 1881. It is to be noticed that the prices of Boston bank stocks, table No. 15, pursued a different course after 1881. Those securities reached their highest average, $131.13, in 1881, and declined $6.63 in their average by November 25, 1882, remained comparatively steady in price until the close of 1883, and declined $2.04 in average price from the beginning of 1884 to the end of June. This course of prices, it will be observed, corresponds very accurately with the course of the prices of manufacturing stocks, though the latter declined much more in proportion. But it is also a noteworthy fact that the prices of Boston bank stocks advanced for two years after 1873, as did the prices of the stocks of New York banks, so that in 1876, September 29, the average of the Boston banks was $125.80, against $136.57 in April, 1872, and the prices of the New York banks averaged $160.39 against $153.98 in April, 1872. The two lists embrace the stocks of 108 banks, and the average price of them all was a trifle higher in 1875 than in 1876. These securities also declined in a remarkable manner during the years 1877 and

1878, though the New York banks declined much less than the Boston banks. The fall in the average price of Boston banks was about 10 per cent., and the average of all the banks declined from April 23, 1877, when it was $131.80, to $124.81 on the 18th of October, 1878. Plainly, conflicting forces were here at work, and the Boston banks, moving in close sympathy with the course of manufacturing industry, greatly declined in price from 1877 to 1878, while the New York banks, influenced both by the course of manufacturing and of commerce generally, and also in an opposite direction by the advance in prices of speculative securities and the improving prospects in the business of transportation, declined comparatively little.

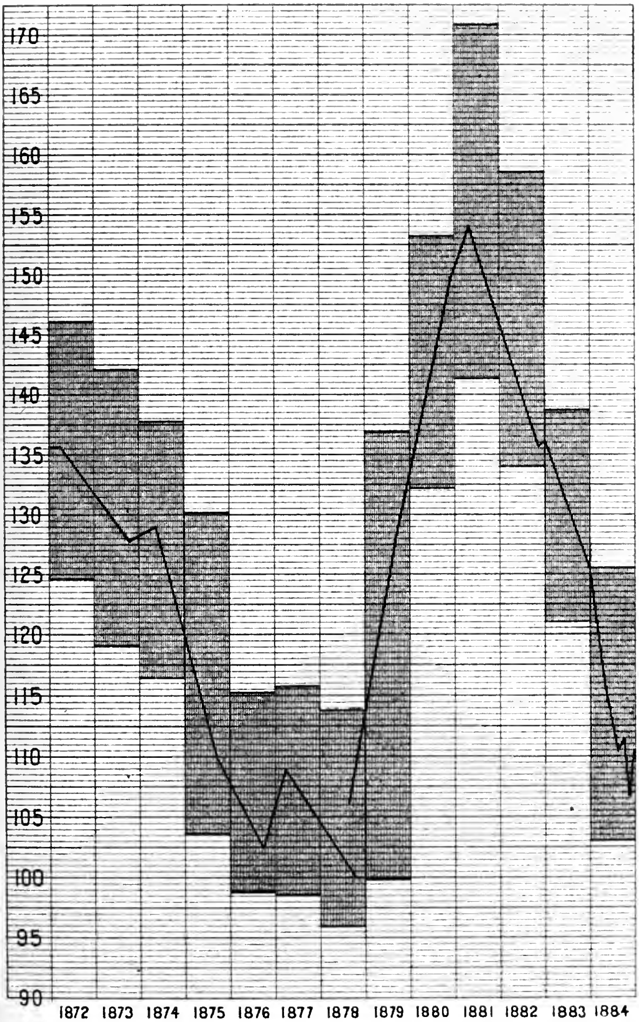
Thus, in the general history of securities for thirteen years, there is found reason, as there was in the history of 1884, to believe that the prices of manufacturing stocks afford more valuable indications of the general condition of business than any other part of the record. Bonds were too steady, and reflected too little the changes which usually govern the price of securities. On the other hand, speculative stocks fluctuated too widely, and at times were governed by other conditions and influences than those arising from the state of business. But the manufacturing stocks, not being anywhere objects of speculation in which sufficient capital was engaged to manufacture prices without regard to actual value, appeared to follow closely the general course of commerce and industry. It is a fact to be weighed, also, that the actual values of railway properties depend at all times largely upon the prosperity of manufactures. In the transportation of materials, and of the products of manufactures, and of food for the workers engaged therein, the railroads find a large part of their business. Moreover, the effect of manufacturing prosperity upon the supply of available capital in the country is very great. Among those engaged in manufacturing, when their profits are large, there is always a demand for investment securities which often has an important influence in the market. Moreover, the condition of manufactures, the increase or de-

crease in the demand for manufactured products, correspond very surely with the changes in the general condition of the people, and those changes ought to govern the valuations of railway as of other property.

As this branch of the inquiry, therefore, exhibits more clearly than any other the effect of the general course of trade and industry upon securities, apart from speculative influences, it seems advisable to compare the prices of manufacturing stocks with some minuteness, as those of active railway stocks have been compared. Accordingly, in table No. 17 in the appendix, prices are given of the same manufacturing stocks, as far as possible, which were quoted for the year 1884. It fortunately happens that forty-five of the same stocks can be quoted from 1872 to the end of 1884, and the quotations for each year have been reduced to percentages upon the capital invested. At the highest or lowest points, where a movement in railway stocks culminated and a change began, the prices of the manufacturing stocks have been recorded and their average value ascertained. In table No. 16 is also given the range of prices each year, in the same manner as for railroad stocks in table No. 7. The highest and the lowest quotations at any time during the year for each stock are recorded, and the averages of such highest and lowest prices are ascertained. Five of the fifty stocks are not quoted for the years prior to 1878, and hence are omitted in computing the range of prices for the later years, but are included in the averages showing the state of the market on particular dates after 1877. The facts which these tables set forth in detail are presented to the eye in the diagram opposite the next page. Here, as in the diagram at page 92, representing the course of the stock market for thirteen years, the shaded parts show the extreme limits of trading during each year; the highest margin corresponds on the scale of figures with the average of the highest quotations reached for each stock at any time during the year, and the lowest margin coincides with the average of the lowest prices for each stock. The black line traces

the change in the average price of the manufacturing stocks, at the different dates which have been found important in the examination of railway securities. It represents the average price on the dates named of forty-five stocks prior to 1878, and of fifty stocks on the 18th of October, 1878, and at the later dates. The averages of the quotations at the different dates, with the corrected relation of the averages, will be found in the tables on pages 171 and 172.

It appears that the average price of the manufacturing stocks in April, 1872, at the point where the highest quotation for railway stocks were made for several years, was $135.80. Some of the stocks were higher at that time than they have ever been since. Among them may be named the Appleton, Franklin, Chicopee, Hamilton Woolen, Hill, Jackson, Lowell Cotton, Naumkeag, New England Glass, Otis, Sandwich Glass, Washington and York. But two-thirds of the whole list have reached higher prices in recent years than were reached in 1872. The general indications were that manufactures were not as prosperous in that year as they had been previously. Moreover, early in 1872 industries felt the effect of very large imports, which rose to nearly $71,000,000 in value in April, an amount never afterwards reached in any month excepting in April, 1880. At the same time exports of merchandise were rapidly declining. In consequence there was a great excess of merchandise imports, no less than $29,000,000 in that one month. In May the excess was nearly as great, and the exports of gold rose in May to more than $14,700,000. In June the exports of merchandise dropped lower than in any other month from 1872 to this date, and were only $34,000,000; in July only $33,000,000, and in August only $32,500,000. Hence, in June the exports of gold were about $11,800,000, and in July over $16,400,000. Thus in these four months the amount of gold sent out of the country was about $46,000,000, and it is not strange that the money market, and the ability of the banks to support either industry or speculation by discounts, were thus materially affected.


170
165
160
155
150
145
140
135
130
125
120
115
110
105
100
95
90
1872 1873 1874 1875 1876 1877 1878 1879 1880 1881 1882 1883 1884

The great apparent prosperity which the active speculation and trade at that time betokened, soon proved unreal, and no other evidence of that fact was more conclusive than the condition of manufacturing industry. Yet the fall in the price of manufacturing stocks was not at all proportioned to the decline in the price of speculative stocks, as will be readily seen by contrasting the diagram just mentioned with the one representing the course of active securities at page 92. The immense gulf which the panic of 1873 caused in the line of prices of speculative stocks does not appear in the prices of manufacturing stocks. It will be remembered that at the time it was believed that the prostration of 1873 was mainly due to speculative and temporary causes, that the general condition of business was all right, and that it would soon recover. The decline in the manufacturing stocks at that time was about $8 per share, so that, on the 7th of November, 1873, the average was only $127.84. In 1874 the recovery which appeared in the prices of active and investment stocks, railroad bonds, United States, State and city bonds, and the stocks of Boston and New York banks, appeared also in the stocks of manufacturing companies, but in much smaller degree, for they advanced only $1.20, to an average of $129.04 on the 19th of May, 1874. It is to be inferred, and the inference corresponds with what is known of the history of the time, that the depression in 1873 had been primarily in trade and in transportation rather than in manufactures, but that the manufacturing interests subsequently began to feel the effect of commercial failures and of railway bankruptcies, so that they recovered much less in price by May, 1874, than might have been expected from the course of other securities.

But the diagram shows that the attempted recovery from the panic in 1874 was of little avail. Prices soon began to settle down again, and those of manufacturing stocks were largely affected by the general depression, which was caused, on one hand, by the fear of reckless inflation of the currency, and on the other by the certainty that specie resumption would for a

time involve lower prices. There is strong reason to doubt whether, if Congress and rulers had possessed the necessary courage to decide upon resumption with little delay, a great part of the disaster which resulted during years of uncertainty, and of gradual, unwilling, and painful preparation, would not have been avoided. This, at least, is certain : the decline in manufacturing stocks kept pace very closely with the fall in the average prices of commodities which preceded resumption, and as about half of the inflation of prices which existed in 1872 had disappeared before the resumption act was passed, so about half of the decline in manufacturing stocks, during the whole period, from the highest point in 1872 to the lowest point in 1878, was experienced before the passage of the resumption act in January, 1875. The same stocks which cost $135.80, April 30, 1872, had fallen to $119.21, a decline of $16.59 per share, before the resumption act was passed, while the lowest point reached for the same stocks just before the resumption of specie payments, or at any other time, was $100 per share. So the average price of several hundred articles, which was $171.37 in 1872, had declined to $138.94 at the end of 1874, and touched $100 just before resumption brought inflation of the currency. There was also a close parallelism in the remarkable depression in 1876, before the Presidential election, and in the sudden recovery early in 1877, after the danger of civil strife was removed by a peaceable settlement of the electoral controversy. In 1876 the average price of the manufacturing stocks dropped to $102.70, a decline of 13.8 per cent. after the passage of the resumption act, and the decline in prices of commodities during the same time was even greater. But the manufacturing stocks then suddenly advanced to $109.12, over 6 per cent. in less than seven months, and the average prices of commodities also advanced from January 1, 1877, to May 1, 1877, nearly 10 per cent. Thus the actual activity of business, and the increasing or diminishing hopefulness prevalent in commercial circles, were quite faithfully reflected throughout by

the change in the prices of manufacturing stocks, whether that improvement was destined to last and the growing hopefulness had solid foundation or not. But the course of the market for active railroad stocks was entirely different. These were stubbornly held without any decline of consequence from May, 1874, until the passage of the resumption act, in the idea that some of the measures of inflation which were then constantly agitated would cause a wild fever of speculation. But from the passage of the resumption act to September 29, 1876, the decline in the active railroad stocks averaged 35.5 per cent., against 13.8 per cent. in the prices of manufacturing stocks. And after the settlement of the electoral dispute, and at the very time that manufacturing stocks realized their utmost advance of 6.2 per cent. in April, 1877, the active railroad stocks sank to the lowest point ever reached, having fallen 25.8 per cent. farther from September 29, 1876, to April 23, 1877. Thus, in spite of the disastrous influence which uncertainty about the currency and the subsequent preparations for resumption, and the political excitement and alarm had upon industry and trade, manufacturing stocks showed greater steadiness than the prices of railway securities, and corresponded more closely with the course of trade in products of all kinds; for the loss during six years in the prices of manufacturing stocks was at the utmost $35.80 per share, or only 26.4 per cent. of the value at their highest point, but the loss in railway securities was $46.10 per share, from $69.03 in 1772 to $22.94 in 1877, or 64.2 per cent. of their value at the highest point. It is natural to infer that the prices of railroad stocks had been more unreasonably inflated during the fever of 1872 than the prices of products or of other securities, and that the liquidation and prostration after 1873 were of such a nature as to affect railroad property and speculative operations far more than productive industry or legitimate trade.

At the lowest point in 1878, the black line in the diagram represents the average price of the forty-five securities continu-

ously quoted from 1872 onward. But at the same point another line begins, representing the average price of the full list of 50 manufacturing stocks, which was at that time $6.12 per share higher, and at the lowest point in June, 1884, was also $5.40 per share higher than the average of the 45 stocks quoted for the earlier years. The great inflation of currency, which came with the restoration of gold to circulation, had a most powerful influence on manufacturing industry and on the prices of manufacturing stocks. In less than one year these stocks rose over $21 per share, and in the next year about $23 more. But this advance continued after the speculative stocks had begun to show signs of weariness and weakness, and had finally ceased to advance. This continued rise is not represented in the diagram, in which, it will be remembered, the black line represents only the rise or fall in price between certain dates, namely, the dates of the important changes in the market for railroad stocks. Thus the line from May 26, 1881, to November 25, 1882, recognizes only the change in prices between those two dates, but does not record the fact that the average price of manufacturing stocks continued to advance until October 1, 1881, when it was $164.14, which seems to be the highest average ever reached.

From the lowest point in October, 1878, to May, 1881, the advance in the average price of manufacturing stocks was $47.95 per share. But the advance in railway stocks during the same time was $61.52 per share. In manufacturing stocks the ratio of advance was 45 1 per cent., quite as much, apparently, as was justified by the change in the condition of business which is manifested in other records. But the active railroad stocks rose during the same time 200.8 per cent., a contrast which strongly confirms the belief that the advance in the speculative securities was in a large degree fictitious and unwarranted. It was made for the purpose of nursing to the very utmost the popular disposition to buy nicely lithographed tickets in the great railway lottery, and a more extensive and

profitable business was done for a time in the manufacture and the sale of such lottery tickets than in any other branch of industry.

The advance in the prices of manufacturing stocks after May, 1881, is the more remarkable because as early as the latter half of 1880 the markets had begun to be glutted with foreign goods. The greatest foreign imports ever known, and the largest domestic production ever known at that time, together gave a supply in excess of the demand. Prices were inflated, and imports from all foreign countries were thus unnaturally stimulated. But in the summer of 1881 prices of commodities declined, and in consequence imports declined largely during the latter part of that year, and it was partly for this reason that the home manufactures were then better sustained. But a more important fact is that the market for these securities had not been artificially advanced, and their prices had not become inflated and false. Consequently the reaction did not come until it was clear that the great loss sustained by the partial failure of crops had for a time checked the consumption of manufactured products. This appears to have occurred during the last quarter of the year, for while the average of prices was $164.14 October 1, 1881, it had declined to $160.67 at the end of the year. Nevertheless the volume of exchanges, after excluding speculative transactions in stocks, and the aggregate of exchanges outside of New York, continued to increase and the increase was noticed to be especially large in the manufacturing cities. Outside of New York, indeed, the volume of exchanges was steadily larger during every month in 1881 than in the corresponding months of the previous year, and during each of the first four months of 1882 it was larger than in the corresponding months of 1881. The decline in the volume of transactions represented by the exchanges of the banks, therefore, did not begin until May, 1882, about one year after the turning point in the price of speculative stocks had been passed, and about seven months after

the prices of manufacturing stocks had begun to slowly recede. It may be doubted whether, if special causes had not discouraged the natural interchange of products in 1882, the business of the country would not have passed the point of difficulty and sustained the losses borne without serious embarrassment until a later period. But the speculation in products supplemented the mischief done by speculation in securities and by excessive railway building. It interrupted both foreign and domestic trade, to an extent which can hardly be measured. Late in the year 1881, the imports were still small while the exports were so large that the excess in the month of December was over $90,000,000. But prices had then begun to advance rapidly, and the speculation in products arrested the exports, while at the same time the advance in prices caused the imports to increase again. Thus it came to pass that, by great activity in trade, the exchanges were swelled or some months after the decline in the value of manufacturing stocks had correctly indicated a shrinkage in the consuming power of the people. It is to be added that the harm done by the excessive sales of securities for the purpose of building new railroads was not felt during the year 1881. The great transporting companies did not begin to sustain serious losses from the competition of new lines until those lines had been completed, a year or two later. In the making of rails, cars, and other equipments for new railroads, some branches of manufacture were sustained in great activity for a considerable time after the sale of new railroad securities had been arrested. But afterwards, when the manufacturers lost the business which had thus been kept up for a time on borrowed money, the disaster came upon them with the greater severity. Thus by comparison of the two records it becomes apparent that the principal cause of depression since May, 1881, has been the extravagant speculation which prevailed in the years preceding and following that date, the inflated condition of industries and of the markets which such speculation caused, and the inevitable

prostration which came when this artificial stimulus was removed by the collapse of speculation.

From the highest point, not shown in the diagram, namely, $164.14, the average price of manufacturing stocks declined not less than $48.87 per share, or 29.8 per cent., to the end of June, 1884, when railway stocks reached their lowest point. But the fall in speculative securities from May, 1881, to the end of June, 1884, was from $94.40 to $41.54, a loss of $52.86 per share, or 56 per cent. The manufacturing stocks, however, had not reached their lowest point in June, 1884. They afterwards declined to an average of $108.67 about December 1st, as they had advanced after speculative stocks began to decline in 1881, so that their total decline in three years was 33.8 per cent. This decline was nearly as great as the advance from 1878 to 1881; the level of prices in December was only 2.4 per cent. higher than in October, 1878. But the decline in railroad securities has not been nearly as great as the advance. Making full allowance for the change in stocks quoted, the average of prices in June, 1884, was still 32.4 per cent. higher than the corresponding average in October, 1878. Indeed, the contrast may be made still more striking. Departing from the predetermined scope of this inquiry for the moment, it may be noticed that the average price of the same manufacturing stocks which are quoted in the tables for recent years has fallen, July 1, 1885, to $105.78, a little lower than the lowest point in the thirteen years under review. But a great exertion to sustain the prices of railroad stocks, in spite of all wars and losses, has been so far successful this year that their average price, July 1, 1885, was $46.32, and this was 47.6 per cent. higher than in October, 1878. It is a question yet to be considered whether railroad property has been really injured as much by wars of rates, by excessive railroad building, by frauds and plundering management, and by speculative manipulation, as manufacturing property has been injured by excessive production and by all other causes. If that is the fact, then there is some reason to

consider the present prices of active railroad stocks fictitious and unwarranted, and to apprehend that the end of the depression in such stocks has not yet been reached. But more light may be cast on that question when we come to consider the growth of the railway system, the manner in which railroads in this country have been managed, and the influence of speculation in stocks upon the management and the building of railroads. It is proper first to observe that the review has already shown that other securities exist in this country, possessing a high degree of ready negotiability, and representing the investment of a very large capital, which have been far more steady in prices than the active railroad stocks, which have more faithfully corresponded with the growth of the country and the development of its industries, and the prices of which have been more nearly controlled at all times by those considerations which, in the judgment of prudent investors, ought to determine the prices of securities.

IX.

Prices, Values and Dividends.

The securities which have now been considered represent a large proportion of all the negotiable securities held in this country. The changes in the average price of the different classes are shown in the following table:

	Active Stocks.		Invstm't St'ks		R. R. Bonds.		Manfg. Stocks	
	Old.	New.	Old.	New.	Old.	New.	Old 45	New 50
1872, April 30	69.03	....	144.43	142.14	94.10	96.39	135.80	144.12
1873, Nov. 7	40.58	....	105.55	103.97	82.51	84.57	127.84	135.72
1874, May 19	47.98	....	111.71	110.04	85.84	87.94	129.04	136.94
1875, Oct. 9	39.89	....	112.26	110.57	86.21	88.32	109.80	116.53
1876, Sept. 29	30.88	....	107.93	106.31	89.05	91.23	102.70	108.99
1877, April 23	22.93	....	98.57	97.09	86.07	88.17	109.12	115.80
1878, Oct. 18	30.63	....	102.26	100.71	....	94.55	100.00	106.12
1879, Nov. 15	65.03	....	....	115.09	....	106.70	120.50	127.96
1880, Dec. 27	79.81	....	....	133.89	....	115.62	141.72	149.84
1881, May 26	92.15	94.40	....	143.29	....	118.44	146.00	154.07
1882, Nov. 25	....	70.34	....	138.81	....	114.37	135.70	141.56
1883, Dec. 31	....	60.05	....	137.29	....	114.95	120.46	125.87
1884, June 27	....	41.54	....	133.49	....	111.50	109.87	115.27

	Boston Banks.	N. Y. Banks.	Total Banks.	U. S. Bonds.	City Bonds.		State Bonds.	
					Old.	New.	Old.	New.
1872, April 30	136.57	153.98	145.43	114.03	87.77	89.82	74.55	85.93
1873, Nov. 7	126.48	146.20	136.52	109.56	87.73	89.78	62.68	72.24
1874, May 19	129.20	150.56	140.08	117.89	87.05	89.08	64.96	74.87
1875, Oct. 9	130.76	160.39	145.84	119.89	92.45	94.61	65.44	75.42
1876, Sept. 29	125.80	157.62	141.98	117.09	95.83	98.07	66.25	76.35
1877, April 23	122.15	141.11	131.80	114.11	95.45	97.68	66.44	76.57
1878, Oct. 18	108.22	140.79	124.81	108.26	95.94	97.87	65.53	75.53
1879, Nov. 15	119.58	154.82	137.06	111.50	....	101.87	....	75.53
1880, Dec. 27	127.51	159.15	143.62	119.71	....	111.50	....	82.31
1881, May 26	131.13	170.00	150.87	122.75	....	113.61	....	86.99
1882, Nov. 25	124.50	181.57	153.60	120.54	....	115.42	....	80.94
1883, Dec. 31	124.03	186.37	155.78	124.92	....	114.35	....	79.25
1884, June 27	121.99	173.75	147.61	119.83	....	113.97	....	74.94

The small figures give only the estimated relation of the older to the newer quotations, as shown by their difference at the point of change. Where two averages are given for the same year in large figures there is a change in the list of stocks quoted, and after such dates the large figures show the average prices of securities in the new lists. There are included for the latest dates 100 railway stocks, 60 railroad bonds, 50 manufacturing stocks, 108 bank stocks, 3 United States, 20 State, and 20 city bonds, in all about 360 different securities, and these represent classes embracing a much larger number.

In computing the relative value of the securities of a certain class at different periods, it is necessary to make allowance either in the earlier or in the later quotations for the difference in the lists quoted. This has been done by the following method: The prices of Oct. 18, 1878, have been taken as the basis of computation, or 100, and the relation of all other averages, earlier and later, to that basis has been calculated in percentages as follows:

	Railroad stocks.		R. R. Bonds.	Manf. stocks.	All (108) Banks.	U. S. Bonds.	City Bonds.	State Bonds.
	Active.	Inac've						
1872...	225.36	141.23	101.94	135.80	116.52	105.33	91.48	113.76
1873...	132.48	103.21	89.44	127.84	109.38	101.21	91.44	95.49
1874...	156.64	109.24	93.00	129.04	112.23	108.89	90.73	99.13
1875...	130.23	109.78	93.40	109.80	116.85	110.74	96.36	99.86
1876...	100.82	105.54	96.48	102.70	113.75	108.15	99.88	101.09
1877....	74.86	96.39	93.36	109.12	105.60	105.40	99.49	101.39
1878....	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1879....	212.31	114.27	112.85	120.58	109,81	103.44	104.08	100.00
1880....	260.53	132.94	122.28	141.19	115.07	111.06	113.92	108.98
1881....	300.84	142.28	125.27	145.18	120.88	113.88	116.08	115.17
1882....	229.64	137.83	120.96	133.39	123.14	111.83	117.93	107.16
1883....	196.05	136.32	121.57	118.61	124.81	115.89	116.84	104.92
1884....	135.61	132.54	112.52	108.62	118.26	111 17	116.45	99.22

This table, it is essential to remember, only shows the relative prices of each class of securities at different dates to the price of that class October 18, 1878, which is treated

as 100. The prices of that date are taken as a basis because, considering the relative importance of the different classes of securities, prices appear to have been on the whole lower at that than at any other date. If all classes of quotations were reckoned of equal importance this would not be the result. Thus by adding the percentages for 1877, it is found that the averages of the nine classes amount for that year to 893.11 against 900 in 1878. But in this reckoning the New York banks are accounted equal in importance to the active stocks; that is, the prices of about $60,000,000 of bank stocks have as much weight as the prices of about $1,200,000,000 of railway stocks.

The quotations given are also representative. They are of value mainly as indicating the course of prices of large classes of securities. Thus the sixty railroad bonds quoted for the later years are taken as an indication of the general course of prices for all railroad bonds, and the 50 manufacturing stocks, in like manner, as an indication of the course of prices for all manufacturing stocks. It is true that the quotations may not correctly represent the actual average of prices of all the securities of a class. Thus, if the quotations of sixty railroad bonds averaged $111.50 at the lowest point last year, it does not follow that the quotations of all railroad bonds, if it were possible to ascertain them, would be the same or even nearly the same. But it is deemed reasonable to believe that the bonds quoted, in their relative advance or decline from year to year, fairly represented others not quoted, so that the advance or decline in the average of all such bonds would not differ materially in proportion from the advance or decline in the bonds embraced in the tables. Reckoning upon this basis, although the aggregate value of all securities at any particular time is not supposed to be accurately represented, it is believed that the relative value of the securities of either class at one time, compared with the value of the securities of the same class

at another time, is represented with substantial accuracy. It remains to take account of the relative importance of classes quoted.

It has been shown that the table of active stocks represents securities of $1,500,000,000 par value, and the quotations of investment stocks represent securities of about $1,000,000,000 par value. It is assumed that the course of prices for $2,500,000,000 of railroad bonds is fairly indicated by the average of those quoted, and the relative prices of city securities amounting to about $800,000,000, and of State securities amounting to about $200,000,000, are represented by the quotations given for those classes. The United States bonds now outstanding amount to about $1,261,000,000, of which the quotations cover about $1,000,000,000. The quotations of New York and Boston bank stocks, taken together, afford the best indication obtainable of the course of prices for all bank stocks, and capital employed in banking, in trust companies and other financial institutions, and the amount of such capital is about $1,000,000,000. Finally, of $2,600,000,000 of capital invested in manufactures according to the census, part was not represented by negotiable securities, but, on the other hand, there has been a great increase since 1880 in the amount of such capital, and particularly in the amount represented by stocks. Accordingly it is thought proper to assume that the quotations represent the value at different periods of manufacturing capital amounting to $2,500,000,000. Though the stocks quoted are in amount only about $60,000,000, representing a few leading branches of industry, they give the best indication that can be found of the changes in the valuation and profits of manufacturing property generally. Evidence might be submitted giving abundant reason to believe that the condition of large branches of manufacture not represented directly by the stocks quoted closely corresponded with the indications given by the quotations. Thus, as to the point

of greatest depression, the average price of steel rails was lower in 1878 than it had been in any previous year, but rose rapidly after that year closed. The average price of refined bar iron for 1878 was only $44.24, and the price near the close of the year, $42.56, was at that time the lowest ever known in the country. The average price of cut nails for the same year was $2.31, the lowest yearly average ever recorded, though the closing price of that year, $2.15, was a little higher than the closing price of the year 1884. The average price of anthracite pig iron was lower in 1878 than in any year in the history of the trade, and the lowest price for any month was in November, 1878. These facts show beyond doubt that one of the greatest branches of industry not especially represented in the quotations of manufacturing stocks also reached its point of greatest depression at precisely the same time with the securities embraced in the quotations. It may be added that comparison of prices of commodities, embracing more than four-fifths of the products bought and sold or consumed in this country, shows that for 40 years ending with 1883 the lowest average was in October, 1878. In prices of commodities generally, also, and particularly in prices of manufactured articles, there was remarkable inflation early in 1872, a depression near the end of 1876 nearly as great as in 1878, and a sudden recovery early in 1877. How surprisingly complete the correspondence is, indeed, between the prices of manufactured products prior to 1881 and the course of the stocks quoted, can be fully realized only after a more extended comparison of quotations of such articles than is here submitted to illustrate the prices of securities. In later years the correspondence is less close only because speculation has had more effect upon the prices, both of commodities and of securities.

It is therefore assumed that the relative value at different dates of all invested capital in each class corresponded with the average of the securities quoted in that class. On this

basis the relative cost of the securities, amounting in the aggregate to $10,500,000,000, in par value, is shown (with five ciphers omitted) for each of the thirteen dates in the following table:

	1872.	1873.	1874.	1875.	1876.	1877.	1878.
Active Stocks.......	10527	6190	7319	6085	4706	3498	4582
Investment Stocks...	14214	10397	11004	11057	10631	9709	10071
Railroad Bonds......	24097	21142	21985	22080	22807	22042	23637
U. S. Bonds........	11403	10956	11789	11989	11709	11411	10826
State "	1718	1445	1497	1508	1527	1531	1511
City "	7186	7182	7126	7569	7846	7814	7829
Bank Stocks...	14543	13652	14008	14584	14198	13180	12481
Manufacturing Stocks	36030	33930	34235	29132	27248	28950	26530
Total............	119718	104894	108963	104004	100672	98135	97467
Average all.......	114.01	99.90	103.77	99.05	95.88	93.46	92.82
Ratio............	122.83	107.62	111.79	106.71	103.29	100.69	100.00
Total R. R...... ...	48838	37729	40308	39222	38144	35249	38290
" Governments..	20307	19583	20412	21066	21082	20756	20166
" Industrial.....	50573	47582	48243	43716	41446	42130	39011

	1878.	1879.	1880.	1881.	1882.	1883.	1884.
Active Stocks.......	4582	9920	12176	13822	10301	8793	6082
Investment Stocks...	10071	11509	13389	14329	13881	13729	13349
Railroad Bonds......	23637	26675	28905	29610	28592	28737	27875
U. S. Bonds........	10826	11150	11971	12275	12054	12492	11983
State "	1511	1511	1646	1739	1619	1585	1499
City "	7829	8149	8920	9089	9233	9148	9117
Bank Stocks........	12481	13706	14362	15087	15360	15578	14761
Manufacturing Stocks	26530	31990	37460	38517	35390	31467	28817
Total............	97467	114610	128829	134468	126430	121529	113483
Average..........	92.82	109.15	122.69	128.06	120.41	115.74	108.08
Ratio............	100.00	11[illegible]59	132.18	137.96	129.72	124.69	116.44
Total R. R...... ...	38290	48104	54470	57761	52774	51259	47306
" Governments..	20166	20810	22537	23103	22906	23225	22599
" Industrial.....	39011	45696	51822	53604	50750	47045	43578

It will be observed, first, that the aggregate of railroad securities, in par value $5,000,0000,000, was lower by $304,-100,000 in 1877 than in 1878. Including United States,

State and city bonds under the general head of Governments, for convenience, it appears that these securities, in par value $2,000,000,000, were worth less in 1878 than in 1877 by $59,000,000. Also it appears that the value of banking capital was less in 1878 than in 1877 by $69,900,000, and that the value of manufacturing capital was less than in 1878 than in 1877 by $242,000,000. Thus the whole body of securities would have cost on the 23rd of April, 1877, $9,813,500,000, and on the 18th of October, 1878, $9,746,-700,000, so that the decline in the aggregate was $66,800,-000. This is not a great difference; if the average price of all securities in 1878 be reckoned as 100; the average price in 1877 was 100.69, a difference of only 69 cents on $100. But this difference is nevertheless greater than the difference in United States bonds, which were doubtless affected between 1877 and 1878 by the prospect of the redemption of 6 per cents, and especially by Secretary Sherman's great success in paying $75,000,000 of four per cent bonds. If on this account the United States bonds were wholly omitted, it would appear that the decline in the other securities was a little more important than the advance in railroad securities. Moreover the decline in banking and manufacturing securities justly represents the actual decrease in profits of trade and of productive industries, but the advance in railroad securities represents in part the power of speculative combinations to influence prices, as well as a real improvement in the business of transportation.

Taking the average value of all securities into consideration, it is found that the decline from 1872 to 1878 was from $122.83 to $100. The decline in governments was small; as a class, these securities commanded higher prices in 1875 than either of the years preceding or in any year following until 1880 But the decline in railroad securities was s great in 1873 that the average price was actually lower than in 1878. The active stocks, it was true, were nearly 50 per

cent. higher in price, but the investment stocks were of about the same average value, while the railroad bonds were much lower in 1873 than in 1878. Finally, the third class of securities, representing general trade and protective industry, namely, the stocks of banks and of manufacturing companies, declined moderately in 1873 and recovered a little the next year; then declined sharply for two successive years, and afterwards materially improved in 1877, just when the railroad stocks were subjected to the greatest depression by speculative influences. It might be naturally inferred that the extraordinary effort to depress prices of railway stocks was prompted by a desire to buy. Speculators would be apt to desire to buy when manufactures appeared to be rapidly improving, when trade was so much more active that the profits of banks were rapidly rising, and when the settlement of the electoral controversy caused a spirit of hopefulness in all commercial quarters. At all events, it will appear that the only cause of continued depression in railroad securities after March 4th, 1877, was the wrangle of the railroad managers themselves, and the war of rates which they contrived to keep up for speculative purposes.

Again, the advance in the average value of all classes of securities from 1878 to 1881 is found to have been 37.96 per cent. In United States, city and State bonds it was much less, the average for this class being only about 15 per cent., and this fact does not strengthen the impression that the advance in active securities was to a material extent due to a general change in the prevailing rate of interest. Moreover, railroad bonds advanced only 25.27 per cent., and this rise represents the improvement in the traffic and the prospects of railroads as well as any decline in the rate of interest. Hence it seems reasonable to infer that the change in the rate of interest during this period did not warrant an advance of more than 16 per cent. in the price of securities. But the advance in the volume of trade and in the possible

profits of commerce and industry was much greater. The stocks of Boston banks rose 21.17 per cent., and the stocks of New York banks 20.75 per cent., and these gains may be supposed to reflect an enlargement in the profits of trade notwithstanding such curtailment of bank profits as the estimated lower rate of interest would naturally produce. The railroad interest made greater gains than any other, and the average advance in prices of investment stocks was 42.28 per cent., and in the prices of active stocks 200.84 per cent. When the course of railway traffic during this period is examined it will be found that there was a great expansion in tonnage, but accompanied by such increased competition between the railroads and between the railroads and the water routes that the increase in earnings did not warrant the rise in active stocks.

Finally, the comparison shows that the decline in the average value of all securities from 1881 to 1884 was only 15.7 per cent., and the average, even at the lowest point in 1884, was still 16.44 per cent. above the lowest point in 1878. But this fall appears in spite of the comparative steadiness in price of Government securities, United States, State and city, which declined as a class only about 2 per cent. The decline in the industrial stocks, manufacturing and banking, was 18.7 per cent., while the decline in railway bonds was only 10 per cent. and in investment stocks only 6.8 per cent. These phenomena contrast strikingly with those observed in the earlier period of depression, when railroad bonds declined 8.4 per cent. in five years, from 1872 to 1877, but investment stocks declined 32 per cent. during the same time, and industrial stocks 22.4 per cent. in six years ending with 1878. Doubtless the condition of business generally was relatively better in 1884 than in 1873, and the monetary pressure was less severe. Nevertheless the decline in the prices of active stocks was about 55 per cent. during the later and about 67 per cent during the earlier period. Ex-

planation of these phenomena must be sought in the management and the earnings of railroads. But it is proper first to compare the dividends paid on different classes of securities.

In the appendix, Table No. 18, are shown the dividends actually paid each year on all the active and inactive stocks quoted, and in Table No. 19 the dividends on all the manufacturing stocks which are quoted in the tables previously mentioned. Those companies only are omitted which paid no dividend at any time during the thirteen years. It is believed that the records are complete, showing all dividends actually paid on such stocks from the first of January, 1872, to the first of January, 1885. Those who have attempted to compile such records know something of the great difficulty which attends that work. They know that it is constantly embarrassed by contradictory statements of the strangest character, which it is found impossible to reconcile. In many cases, too, dividends are quoted as paid in cash though really paid in scrip or in stock. An effort has been made to record the dividends actually paid according to official sources of information, as far as possible. In railway securities, the published official notices have given most of the information desired, and in manufacturing stocks, wherever official notices have not been found, the dividends have been quoted from Martin's well-known record. In each class of stocks averages are obtained by assuming that one share of every stock quoted is held by the investor, and the ratio of the aggregate of dividends paid is computed on the total investment. In the notes, it will be observed, dividends paid in bonds, stock or any kind of scrip are distinguished from dividends paid in cash. But in the computation of averages the cash dividends only are reckoned, for scrip dividends are usually paid without regard to earnings, and at times when the profits of the companies begin to fall short, or when the state of speculation gives especial oppor-

tunity for marketing a large amount of securities. Thus considerable scrip dividends in 1872, 1873, 1874 and 1876 may be attributed rather to a shrinkage than to an increase in the earnings of the companies, and indicate a desire to sustain prices by making returns to stockholders in excess of those which the earnings justify. Again in 1880 and in 1881 large dividends of stock were paid, in two cases amounting to 100 per cent each. As these were in no proper sense returned to stockholders from the past earnings of the companies, they are omitted with all other than cash dividends from the computation of averages.

The following shows separately the aggregate of all dividends paid on the sixty-one stocks at any time paying dividends which are included in the tables of active stocks, and on the forty-five stocks at any time included in the tables of inactive stocks. Dividends in scrip, bonds or stock are distinguished from dividends in cash. The ratio of the cash dividends received each year on all the stocks of each class is also added:

	Dividends on 61 Active Stocks.			Dividends on 45 Inactive Stocks.		
	Cash.	Scrip.	Av. Cash	Cash.	Scrip.	Av. Cash
1872	227¼	38	3.725	371	5	8.244
1873	186	18	3.049	387	10	8.6
1874	176	10½	2.875	370	5	8.222
1775	158¾	7	2.602	362	....	8.044
1876	129¼	14	2.119	343¾	8¼	7.638
1877	88½	....	1.451	295½	6	6.566
1878	105	....	1.721	299¾	12	6.661
1879	112¼	....	1.84	316	6	7.022
1880	175½	230	2.877	342	....	7.6
1881	245½	105	4.024	353	....	7.844
1882	237.9	10	3.9	342½	6	7.611
1883	238¾	28.1	3.914	347	14	7.711
1884	211¼	3½	3.463	345½	2	7.677

Beginning with 1872, we find that the average dividends paid on the sixty-one active stocks were 3.725 per cent., while

the dividends then paid on the forty-five inactive stocks averaged 8.244 per cent. At no time since have so large dividends been paid on the investment stocks as were paid in 1872 and 1873, but the dividends on the active stocks were larger in 1881, in 1882, and in 1883. It is to be noticed, first, that the dividends paid on the active stocks decreased materially in 1873, while those paid on the inactive stocks increased. For this difference no other explanation appears except the fact that the business of the country was quite as active during most of the year 1873 as at any previous time, so that roads depending upon actual traffic rather than upon financial arrangements or the course of speculation for their returns to stockholders were especially successful during the greater part of that year. From 1872 to 1877 the dividends paid on the active stocks declined nearly 62 per cent., and the decline in the average prices during the same period was nearly 67 per cent. Here the correspondence is sufficiently close to warrant a supposition that the market was generally controlled by a due regard for the real value of securities. But, on the other hand, the decline in dividends paid on the inactive stocks, from 8.6 in 1873 to 6.566 in 1877, is much greater than the decline in the prices during the same period. This points to a gradual appreciation in the value of securities paying a fixed rate, or, in other words, to a decline in the current rate of interest expected. The prices of inactive stocks fell in 1873 without regard to dividends paid, and very much lower than any change in the condition of the roads warranted; but this excessive depression in securities of that class must be attributed to the extreme financial pressure, which caused holders to realize as best they could on any property held, or tempted them to sell investment securities which had declined but little in order to support more active stocks in which the decline had been relatively greater. From 1872 to 1877, the more active stocks lost nearly two-thirds of their earning power as rep-

resented by dividends paid. From 1877 to 1881, they advanced largely in earning power, but not relatively as much as they had previously declined, and the advance in dividends, about 177 per cent., contrasts strangely with the advance of more than 300 per cent in prices during the same years. Even in the first year of the recovery, from 1877 to 1878, the increase in dividends paid was only 18 per cent., while the advance in prices was over 33 per cent., and it is to be noticed that the increase in dividends paid would have been much smaller but for the fact that a three and a half per cent. dividend on St. Paul preferred, which was obviously earned in the year 1877, does not appear as having been paid in that year. With that correction the increase in dividends from 1877 to 1878 would be only about 11 per cent., while the advance in prices was about three times as great. On the other hand, the advance in dividends paid on the inactive stocks was insignificant in amount, and the advance in prices, less than four per cent., was also comparatively unimportant. This comparison confirms the conclusion to which other events have clearly pointed, namely, that the advance in prices of active stocks in 1878 was to a large extent unwarranted. Again, from 1877 to 1881 the increase in dividends paid on the inactive stocks was only 19, 4 per cent., while the advance in the prices of those stocks was nearly 50 per cent. This difference, appearing both in the speculative stocks and in the securities which were not objects of speculation, suggests the probability that during the four years ending with 1881 there was a considerable change in the ruling rate of interest. The rapid retirement of the old United States bonds which bore high rates of interest, the success of the government in selling bonds bearing only four per cent. to a very large amount, and the corresponding change which was going on rapidly at that time in the rate of interest paid by corporations and by individual borrowers, would naturally have had some effect upon the prices of

securities which were regarded as sure to pay fixed dividends. The tendency must have been to enhance the prices of such securities more than the increase in the rate of dividends paid. This consideration undoubtedly accounts for a part of the very wide discrepancy between the increase in dividends paid on active stocks and the advance in prices of those stocks. Yet it is clear, at the same time, that a not inconsiderable part of that advance in prices was without warrant in the condition of the properties or in the rate of interest paid.

But a more accurate comparison of prices with dividends paid will be found instructive. To that end the dividends on active and on investment stocks are compared for the same stocks each year which are included in the tables of prices for that year. This involves a considerable change in the rate of dividends for the later years, when several of the old stocks which became no longer active and are dropped from the tables of prices are excluded from the reckoning of dividends paid. Nevertheless the comparison is for that reason all the more instructive. The stocks which have of late years ceased to be objects of speculation, the roads having been leased or otherwise assured regular returns, made less advance in prices than other stocks which had to support them nothing but the power of cliques and speculators, and the false hopes which interested parties were able to create by reports industriously circulated. It is found that the more active stocks in speculation, which are included for the recent years, earned less dividends than the older stocks which they supplanted, and yet rose much more in price. In the following table, the average of dividends actually paid, on the same stocks that are included in the tables of average prices, are compared with the prices at the important points each year, and the ratio of dividends paid to the market value of the securities is calculated. The same course is pursued for investment stocks, except that for the last three

years, the dividends on New York Elevated having been arrested by the litigation regarding the lease to the Manhattan, the dividends on Harlem, previously of the same amount, are included instead. Otherwise the price paid for certain classes of securities is strictly contrasted with the dividends paid on the same securities :

	Active Stocks.			Inactive Stocks.		
	Average Cash Div	Market Price.	Dividend on Cost.	Average Cash Div	Market Price.	Dividend on Cost.
1872.........	3.621	69.03	5.24	8.562	144.43	5.93
1873.........	2.983	40.58	7.35	8.95	105.55	8.48
1874.........	2.758	47.98	5.75	8.55	111.71	7.65
1875.........	2.454	39.89	6.16	8.35	112.26	7.44
1876.........	1.971	30.88	6.38	7.894	107.93	7.31
1877.........	1.375	22.93	6.00	6.787	98.57	6.88
1878.	1.650	30.63	5.39	6.844	102.26	6.69
1879.........	1.642	65.03	2.52	7.025	115.09	6.10
1880.........	2.133	79.81	2.67	7.55	133.89	5.64
1881.........	3.058	94.40	3.24	7.812	143.29	5.45
1882.........	2.958	70.34	4.21	7.812	138.81	5.63
1883.........	3.096	60.05	5.15	7.787	137.29	5.67
1884.........	2.754	41.54	6.63	7.725	133.49	5.78

One cause of discrepancy should be noticed at the outset. The averages are unavoidably computed upon dividends paid during each calendar year, because the fiscal years of the companies end at different dates, and it is therefore found impossible to distinguish the dividends earned during a particular calendar year. In one case, because it is clear that the dividend of 3½ per cent. on St. Paul Preferred which was paid in 1878 actually belonged to the year 1877, it has been so reckoned in the averages. With that exception, the statement of dividends must be understood as representing in the main the earnings of a period a little earlier than that within which the dividends were paid. Thus the dividends paid during the year 1884 represented in the main the earnings of the last half of 1883 and the first half of 1884.

There are some very curious disclosures in this table.

Traces of a quite steady decline in the current rate of interest are seen in the comparison of investment dividends with prices of the same stocks. From a rate of dividends to cost of 8.48 per cent. in 1873, there was a steady decline every year until 1881, and since that time there has been a slight but steady advance. On the other hand, prior to 1878 the prices of active stocks were comparatively steady with respect to dividends, never rising so far that the dividend paid averaged less than 5¼ per cent. on the cost of the securities, nor falling so far, except during the panic in 1873, that the dividend paid averaged more than 6.38 per cent. on the cost of the securities. But in 1879 a sudden rise in prices without any rise in dividends caused a decline of more than one-half in the ratio of dividends to cost. Here it may be said that the dividends paid during the year 1879 represented in part the deficient earnings of the year 1878, and in part were curtailed by the economies to which the companies were forced to resort during previous years of depression, while the market price represented rather the current estimate of the ultimate value of the securities. But in 1880 the advance in the rate of dividends and in the price of securities was about the same, and in 1881, though the advance in dividends was relatively greater than the advance in prices, it was nevertheless not nearly enough to make the ratio of dividends to the cost of securities approximate to that of earlier years. Here it is very clear that, after all possible allowances have been made for the difference in point of time between the year within which dividends were earned and the year in which they were paid, there is nevertheless a striking discrepancy between the advance in prices from 1877 or 1878 to 1881, and the advance in the rate of dividends. Nor can that discrepancy be in any way accounted for, except upon the theory that the prices of a considerable number of the stocks quoted were inflated during this period altogether without regard to the earnings of the companies. In 1877, the divi-

dends paid on the stocks quoted were only 1.375 per cent., and in 1881 they were 3.058 per cent., an advance of 122 per cent. But the stocks quoted rose from an average price of $22.93 in 1877 at the lowest point to $92.15 for the same stocks in 1881, an advance of 300 per cent., while the stocks quoted for 1881 and later years reached an average of $94.40. Clearly the actual earning power of the companies warranted less than half of that advance in price.

But in later years a different set of phenomena appeared. When stocks began to decline in 1882, the fall in prices was far greater than the decline in the rate of dividends, so that in a single year the ratio of dividends to the cost of securities advanced about one per cent. This may be in part attributed to the fact that the dividends paid in 1882 were in part earned in 1881. But in 1883 the dividends actually increased, reaching a higher average than at any other time since 1872, and nevertheless the average price of the stocks declined one-seventh, so that the ratio of dividends to the cost of securities advanced nearly one per cent. more, and closely approximated the ratio of dividends to cost of the investment stocks. Finally in 1884, the decline in dividends was only about 10 per cent., while the decline in prices was more nearly 30 per cent., so that the ratio of dividends to the cost of securities rose above that of inactive stocks in the same year, and was higher than in any other year of the whole record excepting 1873. Two explanations are here to be considered. Dividends not earned were certainly paid in some cases, for the purpose of sustaining the prices of stocks. To what extent this was done in 1884 and in some previous years it is impossible to ascertain with exactness, though reasons will be found for some conclusions on the subject when the traffic and earnings of railroads are considered. Second, it may be urged that the great decline in earnings occurred during the last half of the year 1884, and was not reflected, consequently, in the dividends paid prior to January

1st, 1885. This is to some extent the fact. The average of dividends paid during the first half of 1885, on the same sixty active stocks whose prices were quoted for 1884, was at the rate of 2.083 per cent. yearly, only one-third less than in 1881, while the prices of the stocks had declined from $94.40 to $45.64 at the end of the first half of the year 1885. Thus an average of dividends amounting to 2.4 per cent for the year ending July 1st, 1885, is to be compared with an average of about $45 per share in price, so that the ratio of dividends to the market value was about 5.33 per cent. If the dividends were earned, the current prices cannot be considered too high. It may be added that the average of dividends on the 40 investment stocks during the first half of 1885 was 7.38 per cent., against 7.74 per cent. for the year 1884, a very moderate decline.

There remains to be considered the record of dividends paid on manufacturing stocks for thirteen years. The prices of these stocks are compared as before with the dividends paid in the following table, which also gives the earnings of all national banks in the country upon capital and surplus for each year ending September 30 since 1875:

	Manf. Stocks.	Market Price.	Dividend on Cost.	Earnings of Banks
1872	14.03	135.80	10.33	....
1873	10.81	127.84	8.45	....
1874	9.24	129.04	7.16	....
1875	6.26	109.80	5.70	....
1876	4.97	102.70	4.84	7.5
1877	6.84	109.12	6.27	7.1
1878	5.39	100.00	5.37	6.2
1879	7.16	121.40	5.89	6.1
1880	10.32	144.23	7.15	6.4
1881	9.83	148.19	6.63	6.6
1882	8.11	138.25	5.87	6.8
1883	7.09	123.05	5.76	6.5
1884	5.49	113.04	4.85	6.5

Here also cash dividends only are reckoned in computing the averages, though all dividends that could be ascertained

are given in the tables. As the dividends paid by three companies could not be ascertained, though it is known that some had been declared, these stocks are omitted from the reckoning of the average of dividends paid, and new averages of prices are prepared, embracing the remaining stocks, namely, those whose payment of dividends or whose failure to pay any is recorded.

The record of the banks is materially affected by the retirement of Government bonds, and the consequent shrinkage of profits on circulation. It is due to this, doubtless, that the dividends were less in 1879 than in 1878, but it is well to observe that the fall in the prices of bank stocks, which was about 5½ per cent. from 1877 to 1878, was fully warranted by the decline in the net earnings on capital invested. It will also be noticed that the earnings are for years ending with September, and therefore, like the railroad dividends, do not correspond strictly with those of the calendar years. But the fact that the earnings have been well maintained in recent years indicates a much better state of business than appeared in 1878.

The manufacturing dividends, however, do not correspond with the earnings of banks in this respect. The average of dividends was only a little higher last year than in 1878, and the latter half of 1884, represented by dividends paid after January 1st, 1885, was clearly less favorable to manufactures than any other half year on record excepting in 1876. In the latter year the average prices of stocks were considerably lower than at any point in 1884, and the dividends were lower than in any other year of the record. The depression of prices in 1878 must be attributed in part to the financial pressure and the political uncertainty near the end of that year as to resumption, and not wholly to the condition of industry. The decline from average dividends of 14 per cent. in 1872 to less than 5 per cent. in 1876 had seemed great enough to ensure a reaction. A Presidential election, and

especially a disputed election, between parties understood to be opposed to each other on questions of taxation and tariff, naturally has much to do with the expectations of people interested in those manufactures which have been made dependent on the fiscal policy of the government. Thus it comes to pass that the two worst years in the whole record were the years of closely contested Presidential elections.

The depression in 1878 was the more disheartening because it came after a considerable expansion of business, prompted by the more hopeful tone prevalent early in 1877. The recovery from average dividends of 5.39 per cent. in 1878 to 10.32 per cent. in 1880 was at the rate of 91 per cent., while the advance in prices during the same time was only 44 per cent. This points attention to the radical difference between investment and speculative stocks. The latter rose nearly 250 per cent., from 1877 to 1880, on gains of only 55 per cent. in dividends; and from their lowest to their highest point they rose 300 per cent., on gains of 122 per cent. in dividends; while manufacturing stocks sank so little in times when dividends were the smallest that they rose only 44 per cent. when dividends were doubled. The very existence of an active market for securities, it is clear, goes far to deprive them of that steadiness which reliance upon a long future gives, and which is essential to the investor.

It is to be noticed, also, that the dividends paid in 1881 on manufacturing stocks were lower than in 1880. Manufactures had begun to suffer depression, even while active stocks were being hoisted to ever higher prices by all the arts known to speculation. The manufacturing stocks shared but little in this advance in prices; less than 3 per cent. in that period of five months, while the active stocks advanced during the same time about 18 per cent. The decline in prices which followed from May, 1881, to June, 1884, was about 23 per cent. in manufacturing stocks, while the active stocks, with much less loss in the dividends declared, fell

more than 56 per cent in price. It cannot be objected here that the dividends paid do not fairly represent the condition of properties at the time the prices quoted were made. For the highest prices for active stocks were made before the dividends were paid about the middle of 1881, and these were generally the last of those included in the dividends for that year. In 1884, also, the lowest prices were made in June, before the payment of dividends from the earnings of the first half of the year on most of the railroads, and these were generally the last dividends included for that year, so that the changes which occurred in the condition and prospects of the transporting business later than July 1, 1881, or later than July 1, 1884, did not affect the dividends actually paid within either year, as they did not affect the prices of stocks at the dates mentioned. The contrast may be more readily appreciated when stated as follows:

Stocks.	Decline in Dividends.			Decline in Prices.		
	1881.	1884.	Per ct.	1881.	1884.	Per ct.
Active............	3.058	2.754	10	$94.40	$41.54	56
Inactive...........	7.812	7.725	1	143.29	133.49	7
Manufacturing.......	9.83	5.49	44	148.19	113.04	23

While the dividends paid on the manufacturing stocks fell very severely, not less than 44 per cent,, the prices declined only about half as much, and for the obvious reason that the prices in 1881 had not been inflated to correspond with the earnings in an exceptional year, but were governed by what was believed to be the general earning power of the companies for a series of years. Hence in 1884, though the dividends fell below 6 per cent, the prices of the stocks did not fall below 100, but were also governed in that time of depression, as they had been in the time of exceptional prosperity, by the belief of parties interested regarding the general earning power of the companies. The investment

stocks, though meeting only an insignificant change in dividends, fell much more in prices, and yet only 7 per cent. The fall in prices was disproportionate to the decline in dividends, because these stocks were indirectly connected with the speculative market and were influenced by it. But the active stocks, which make that market what it is, and are largely controlled by it, decreased in dividends paid only 10 per cent., while the prices of those stocks dropped 56 per cent. Even at the rate of 1884, those stocks paid nearly as much as Government bonds, and yet their prices dropped to an average of about 41 cents on the dollar. Here it is plain that the earning power of the companies had very little to do with the prices of the stocks. No argument is needed to show that stocks which pay only 3 per cent. in years of extraordinary prosperity are not really worth 94 cents on the dollar. Obviously there was inflation of prices in 1881. And it is equally plain that stocks which still pay 2¾ per cent in a time of great depression are worth more than 41 cents on the dollar, if there is reason to believe that those dividends are earned, and represent the real earning power of the companies. But that is precisely what the street did not believe in 1884. It well knew that the dividends had been paid, in many cases, for no other reason than to lift up the prices of stocks, so that those who best knew the condition of the companies could sell. This was suspected to be the case in many other instances, where perhaps it was not. Hence no one wanted to buy. Nor will it be said that this indisposition to purchase was without reason, in the light of facts which will be disclosed by an examination of the recent history of railway construction, management and traffic.

X.

Railroad Failures, Traffic and Earnings.

To trace the progress of the railroad system in its growth is less easy than many suppose. Among those who have given attention to the matter it is known that, notwithstanding the great number of books published expressly for the purpose of giving a full account of the railways, and notwithstanding the ability and thoroughness of journals devoted especially to that branch of inquiry, railway statistics are nevertheless exceedingly inadequate. For instance, it is not possible for any one living to state with accuracy the number of miles of railway now in operation in this country, and yet statistics are constantly circulated which purport to give the desired information. Upon scrutiny it appears that the published statements give only some record of the new mileage completed during each year, but make no account whatever of any destruction or abandonment of railroads during all the 50 years of railway building. Nor are the published statements of mileage constructed from year to year found correct. It was a surprise to many, when the census report appeared, to find important discrepancies between the official returns therein contained and the tables of railway mileage previously accepted. Yet the census, by far the best and most thorough ever taken in this country, nevertheless entirely failed to show what was the exact mileage of railways in operation at any precise time. It will be observed that the accomplished compiler of that report quite frankly admitted his inability, with all the resources at his command, to "obtain the actual number of miles completed to one given date from the different companies reporting." Moreover, the records of yearly mileage constructed have until lately been full of inaccuracies, and although a paper of

marked enterprise has undertaken in later years to supply a careful statement with the aid of official information, even the "Railway Age" has not yet overcome the difficulty of connecting its record with that of the census, so as to determine precisely the mileage in operation at any point of past time.

But it is still more strange that there is no accurate statement in existence of railway defaults or foreclosures, or of the legal extinguishment of property in railroads. A sufficiently correct estimate of the mileage in operation can be computed by use of the various sources of information. Nor is it impossible to ascertain with sufficient correctness for all practical purposes the aggregate of funded debt and of capital stock at a given time. But while the records tell us much of railway construction, they tell us nothing of railway destruction. There are no records of the wiping out of ownership or of legal rights through the proceedings with which for more than 30 years the courts of the country have been filled. We search in vain for evidence of these things, in many cases. In the course of the search we find that some roads have been completely abandoned. On some not a wheel has been turned for years. On some lines even the rails have long ago been torn up. We search for weeks among old records, and pore over the accounts of corporations of which almost the very names are now long lost, in order to find even approximately what was the extent of railway failures in different years, and what mileage and what nominal and actual capital were involved. Of late the "Railway Age" has published a close approximation to the number of foreclosures each year, and the amount of stock and bonds affected thereby, but even these statements, valuable as they are, do not give any information whatever on the vital question what portion of the stock or of the bonds was extinguished by the foreclosure proceedings. Nor does it appear how far new contributions of capital made the con-

tinued bonds and stocks virtually represent not old but new investments.

It may be supposed by many that this line of inquiry, though highly interesting, and possessing indeed a painful interest to those concerned in the properties affected by foreclosure, is nevertheless relatively unimportant, inasmuch as it concerns after all but a small part of the whole railroad property. Yet a very few facts suffice to show that this impression is mistaken. During the four years, 1872, 1873, 1874, and 1875 railroads having at the time outstanding more than $835,000,000 in bonds and more than $626,000,000 in stock, and operating more than 24,700 miles of railroad, not only defaulted on their obligations, but failed to effect any compromise with creditors so that operations were continued by amicable settlements. In most of these cases foreclosure ultimately became necessary; in others, after long delay and serious loss to all parties concerned, the property was surrendered to the bondholders, or the interests of stockholders were completely extinguished by leases in which only provision for the payment of interest on the bonds was made. According to Mr. Poor, whose records for these years, though not faultless, are the best obtainable, there were 66,171 miles in operation at the end of 1872, and he gives for 1873 the operations of 66,237 miles of road, represented by $1,947,638,584 stock and $1,836,904,450 funded and other debt. If these figures are correct, defaults within four years affected 37.4 per cent. of all the railway mileage in the country, 45.5 per cent. of all the railroad debt, and 32.1 per cent. of all the stock

In 1872 the number of railroad defaults was small. Record is found of only sixteen, of which the Alabama & Chattanooga, the Little Rock & Ft. Smith, and the Vermont Central were the most important, each having over $10,000,000 of stock and bonds outstanding at the time of the failure. Yet the sixteen had in operation 3,998 miles of railroad, with

$117,667,219 of bonds and $84,222,806 of stock, in all $201,890,025 of nominal capital represented. In the first part of 1873, also, before the panic began, the defaults were numerous and of large amount, the bonds alone amounting to $91,000,000. These facts show that the railroad system was not on a sound foundation, but, like commerce and industry generally, had been undermined, weakened and prepared for serious disaster by rash expansion of credit. It has been said that the panic of 1873 was in its nature essentially a commercial rather than a railroad panic, but the statement would convey a false impression if it were not at the same time understood that the railroad system had been thus strained and weakened by excessive expansion of credits and by speculation, and that railroads as well as merchants had been failing in unusual number because of the same growing financial pressure which this expansion and reckless speculation had caused. The evil affected all who had been enabled to carry forward large operations by abuse of the credit system, and the railroad managers were not more proof against the allurements of such an opportunity than the merchants. But the railroad failures were conspicuous because of their magnitude, and because of the importance of the houses which they dragged down in their fall. In the years 1872, 1873, 1874, and 1875, the defaults of railroads, excluding all which were merely temporary or were closed by compromise within two and a half years thereafter, were in mileage and financial importance as follows :

RAILWAY DEFAULTS.

Years.	Mileage.	Bonds.	Stock.	Total.
1872..........	3,998.0	$117,667,219	$84,222,806	$201,890,025
1873..........	8,519.3	272,330,185	173,881,888	446,212,073
1874..........	6,827.6	281,390,829	198,659,682	480,050,511
1875..........	5,427.6	163,977,408	169,499,666	333,477,074
4 years........	24,772.5	$835,365,641	$626,264,042	$1,461,629,683

Much the greater number of failures followed the crash in 1873, and may be said in some sense to have been caused by it. Yet a crash does not come when a railroad is strong, safely managed, and established in the enjoyment of a profitable business. There was first the weakness, which made the pressure fatal, and then the pressure. Nor is it to be overlooked that the fierce speculation in gold and stocks had much to do with the monetary stringency. It has been shown how this cause disturbed all business in 1872 and early in 1873. Among the causes which worked together to cause the great disaster, therefore, this wild speculation must be reckoned as one of the most important, though not as in 1884 exceeding all others in importance.

The foreclosure of railroads followed after the defaults, and often at a long distance in time. Proceedings in courts, proverbially slow, are never slower than when lawyers have a great corporation rather than an individual to bear the cost and the delay. The following record of foreclosures for 1873, 1874 and 1875 will show how slowly the failures of 1873 found expression in final decisions of the courts. It is not supposed to be complete, though it includes all sales or voluntary surrenders to bondholders of which record has been found after considerable search:

RAILWAY FORECLOSURES.

Years.	Mileage.	Bonds.	Stock.	Total.
1873	829.5	$22,080,000	$19,196,600	$41,276,600
1874	1,266.8	46,286,782	30,999,053	77,285,835
1875	4,820.6	187,763,127	122,308,760	310,071,887
Total	6,916.9	$256,129,909	$172,504,413	$428,634,322

The great crop of failures in 1873 did not produce its full effect upon the record of foreclosures until the second year following. Nor did the sales in 1873–1875 represent the whole or even the larger part of those which resulted

from the panic. When the corporations were large, and the lawyers able and willing, the cases were made to last much longer. Thus it will be seen that most of the stocks and bonds affected by the defaults above mentioned were still depending upon legal proceedings for their value, when the year 1876 opened. The record of foreclosure sales prepared by the "Railway Age" begins with 1876, and includes only the aggregate of stocks and bonds. In the following table the totals above given for the three previous years are added :

RAILWAY FORECLOSURES.

Years.	Number.	Mileage.	Stock and Bonds.
1873	4	829	$41,276,600
1874	12	1,267	77,285,835
1875	36	4,821	310,071,887
1876	30	3,840	217,848,000
1877	54	3,875	198,948,000
1878	48	3,906	311,631,000
1879	65	4,909	243,288,000
1880	31	3,775	263,882,000
1881	29	2,617	127,923,000
1882	16	867	65,426,000
1883	18	1,254	47,100,000
1884	15	710	23,504,000
12 years	358	32,770	$1,928,184,322

If it be supposed that the proportion of stocks to bonds of the roads foreclosed was the same as of other roads throughout the country, namely, about equal, the amount of stocks affected may be placed at about $950,000,000. But among the railroad defaults during the earlier years were doubtless more than half of the railroads finally foreclosed, and of these it has been seen the proportion of stocks to bonds was about as 3 to 4. If this was the proportion throughout, the amount of stocks affected by the foreclosures above recorded was about $826,365,000 and the amount of bonds about $1,101,820,000. Part of the bonds and nearly

the whole of the stock were either extinguished entirely, or holders were compelled to secure a further tenure by new cash contributions, so that the securities afterwards represented not the old but a new investment of capital. Probably it is safe to say that not less than $900,000,000 of nominal capital, out of an aggregate of about $3,800,000,000 at the beginning of the year 1873 has been extinguished by foreclosure. The amount of capital actually invested was not by any means so large, though the proportion of cash paid down to the nominal capital and bonded debt was much larger in those days than it has been since. But, there was enough of it to make the extinguishment of the property by foreclosure a most important matter to railway builders and railway owners in this country.

Is it to be inferred, then, that railroads had even then been built in excess of the public need; that prior to 1873, as in the years 1879–1883 inclusive, there were too many railroads built, and too much money sunk in such works, and that this was the chief cause of financial disaster?

If this interpretation be accepted at all, it can be accepted only with important modifications. The railroads built were too many chiefly because they were wrongly placed. There was then and still is room for more roads, in some parts of the country. But after the completion of the Pacific railroads there came a wild rush to create other such lines, and to secure direct communications with them. This led to railway building in the far west, in regions yet unsettled and unable to support railroads. In such a time, government should have been a regulator and a check upon enterprise, but instead it afforded a most powerful stimulus. Large grants of land were given, to one or two lines properly, for the construction of at least one transcontinental route was then a national necessity, that the Union might be assured by permanent lines of swift communication between the Atlantic and the Pacific States, and by a belt of

continuous settlement. But the government also gave improperly to many more lines, as if on purpose to destroy the value of grants to any. It encouraged the building of more roads than could possibly be supported, either by the traffic at that time existing, or by the vastly greater traffic which the lapse of twenty years has now brought us. Political and local considerations ruled, rather than wise statesmanship. Had one or two great lines been aided, and had had railroad building then been left for twenty years at least to private enterprise, there would have been less reckless construction of roads in the years 1866–1872, or in the years 1878–1883. Out of the building of the many lines projected came fierce contest for superior connections with the existing or projected Pacific roads.. Every strong company reaching into the western region sought to secure such connections for itself, or to shut out its rivals, as Mr. Vanderbilt endeavored to shut out Canada lines from connection with Chicago in 1877 and in 1878. Thence came fierce wars, and the rates charged for traffic on all lines, both in the far west and afterwards at the east, were affected more seriously than at any time in the previous history of the railway system.

Just as the building of railroads in a wild and unsettled country was the chief cause of the prostration in 1873, so it was an important cause of prostration in 1884, but no longer the chief cause. The building of competing lines was the fatal feature of the latest fever of railway extension, and this was due mainly to the partial success of railway pools.

It has been fashionable among railroad men for some years to ascribe great virtues to the pooling system. But the clear-headed railway manager, who surveys the events of the past ten years with coolness and impartiality, must certainly see much reason to believe that these combinations have done more harm than good. They came into being as a mode of defense against the fierce competition which Mr.

Vanderbilt himself began, in fighting nominally for "one rate to the seaboard," but really to shut out rivals from Chicago. Back of this struggle and its cause, as we have seen, was the contest of railroads to secure exclusive or peculiarly favorable western connections with the transcontinental roads.

The first effect of the pooling system was undoubtedly good. It prevented ruinous rates, and secured for the roads enlisted in the different combinations large profits in place of losses. In justice to the companies, it should be said that the rates usually established were not extortionate. On the contrary, the established rates were for the most part lower than the rates which had prevailed before the organization of the pool. But evils nevertheless resulted. There was discrimination against the roads not connected with those embraced in the different combinations. Shippers were prevented from shipping by such routes as they preferred, and they often had their freight moved, not as they pleased, but as the railroads pleased. Even after freight had been taken with the distinct understanding that it should be moved by particular routes, the railroads claimed, and until prevented by decisions of the courts, freely exercised the right to divert it to other routes, if under their agreements with each other such diversion was required to make the division of traffic correspond with the stipulated percentages. Thus it came to pass that shippers had no opportunity to compel promptness or fidelity by transferring their business to other roads. They were obliged to deal, not with a recognized and responsible line which sought their traffic and had a direct interest in retaining it by faithful service, but with an irresponsible organization not known to the laws, over which they had no power, and which had no occasion to care whether they were satisfied or not, since they were obliged to ship by one road or the other at any rate. The railroad companies were accustomed to make light of these objec-

tions, but they were nevertheless serious. It is doubtless the fact that they were more potent in producing public hostility to the pooling system than the rates charged, which were on the whole more reasonable than had been expected.

The object of these combinations was .to prevent or to limit competition. It did so, but only between the roads then existing. It was presently seen that the success of any connection offered a most powerful incentive to the construction of other and rival railroads. For the combinations made the business of transportation largely profitable. It enabled the companies interested to declare large dividends. Soon capitalists began to calculate what profits a new road, cheaply built and with money borrowed at low rates of interest, would return if it could secure a moderate proportion of the total traffic. Then one experiment was made. It succeeded, and then another followed. At the outset the combined roads felt that they had no choice, and could not refuse to admit a new member to the pool. They saw that they might as well abolish the pool altogether. Yet the admission of one road necessarily involved parting with a share of the the profits, whether the new road could secure the same share of the traffic or not. This immeasurably increased the attractiveness of railroad building as a branch of national industry. It was no longer a question whether a proposed road was needed by the business of the country. The only question was whether there was in existence a profitable pool, which could be forced to take in a new line in order to avoid more costly sacrifices. In a short time new lines sprang into existence in every part of the country. Within a few years three were completed between New York and Buffalo, namely, the Erie extension, the Lackawanna extension, and the New York, West Shore & Buffalo. Four were completed between the western termini of the trunk lines and Chicago; the Grand Trunk, the Chicago & Atlantic, the Baltimore & Ohio, and the "Nickel Plate." In like manner, new com-

peting roads were built in the Northwest, and between Chicago and the Mississippi River; the Chicago & Alton was extended through Missouri, and the Burlington across Iowa; the Burlington was pushed on to Denver; and across the continent there were completed the Northern Pacific, the Southern Pacific, the Atchison, Topeka & Santa Fe, and the St. Louis and San Francisco, to divide the traffic which the Union & Central Pacific had once enjoyed.

It was soon perceived by the pooling roads that it was impossible that this thing should go on forever. Capital could continue to build roads as long as any profits remained to be divided. Indeed, it was likely to continue to build as long as there were only delusive hopes of profit, for, in addition, the state of speculative markets was such that there were vast chances of profit in construction companies and in the handling of new securities, whether the roads built could ever be made profitable or not. At first there was moderate resistance, and for the time a war of rates, before the new competitor was finally admitted to the combination. Afterward the struggle became longer, and the final agreement was in some cases reached, as in the case of the "Nickel Plate," by the sale of the new road to an older rival. Finally the struggle became still longer and more destructive, and brought tremendous losses to the older roads, as in the case of the contest between the New York Central and the West Shore. Thus it is seen that excessive railroad building in late years has been largely due to the pooling system, which virtually offered a premium for the construction of roads where none were needed. It was more surely profitable to build a railroad in close and direct competition with other strong lines just where a new road was needed least than anywhere else, because there was more probability that the strong road could be forced to buy it at a good price in order to avoid the disastrous losses which a long struggle would involve.

The record of railroad operations illustrates these explanations most forcibly. Mr. Poor's yearly Manuals, though often inaccurate and especially defective in tabulation, are the only publications in which an attempt has been made to assemble the statistics of all railroads for a series of years. The following is an abstract of his yearly statements with his latest corrections, excepting that the first line for 1879 shows the tabulation for that year as corrected in the volume for 1882; the next line gives the results of the census for 1880; and the remaining lines give the tabulation which Mr. Poor now substitutes for 1879 and the subsequent years:

CAPITAL, EARNINGS AND DIVIDENDS.

Years	Miles Op'r't'd	Capital & Debts	Gro's Earn'gs	Net Earnings	Dividends Pd
1872.	57,323	$3,159,423,057	$465,421,055	$165,754,373	$64,418,157
1873.	66,237	3,784,543,034	526,419,935	183,810,562	67,120,709
1874.	69,273	4,221,763,594	520,466,016	189,570,958	67,042,942
1875.	71,759	4,415,631,630	503,065,505	185,506,438	74,294,208
1876.	73,508	4,468,591,935	497,257,959	186,452,752	68,039,668
1877.	74,112	4,568,597,248	472,909,272	170,976,697	58,556,312
1878.	78,960	4,589,948,793	490,103,351	187,575,167	53,629,368
1879.	82,223	4,762,506,010	529,012,999	219,916,724	61,681,470
1880.	87,782	5,425,722,560	580,450,594	227,650,473	70,550,342
1879.	79,009	4,872,017,517	525,620,577	216,544,999	61,681,470
1880.	82,146	5,402,038,257	613,733,610	255,557,555	77,115,371
1881.	92,971	6,278,565,052	701,780,982	272,406,787	93,344,190
1882	104,971	7,016,750,109	770,209,899	280,316,696	102,031,434
1883.	110,414	7,477,865,782	823,772,924	293,367,285	102,052,548
1884.	115,672	7,676,399,054	770,684,908	268,106,258	93,244,835

It will be observed that Mr. Poor now represents that 79,009 miles of railroad earned in 1879 almost the same amount, gross and net, and paid precisely the same amount in interest and dividends, that he represented as earned and paid in that year by 84,233 miles of road in his volume published in 1880, and that he also represented as earned and paid in the same year 1879 by 82,223 miles of road in his corrected table published in 1882, page 12. This illustrates the difficulty of determining to what mileage actually oper-

ated Mr. Poor's statistics at any time apply, and the doubt which arises whether the figures now given will not be in like manner modified hereafter. But it is proper to assume that the latest comparative statement has been corrected as far as possible, and from this, with the latest tabulations by Mr. Poor for years prior to 1879, are computed for the following table the gross and net earnings and dividends paid per mile of road operated. In the fifth column appears the aggregate ton-mileage transported in each year on five of the great trunk lines between Chicago and the Atlantic coast, namely, the Pennsylvania, including the United Railroads of New Jersey and the Philadelphia & Erie; the New York Central; the New York, Lake Erie & Western; the Lake Shore, and the Pittsburg, Fort Wayne & Chicago. In the sixth column is given the ton-mileage transported each year on six of the great western trunk lines, namely, the Chicago, Burlington & Quincy; the Chicago & Northwestern; the Chicago, Milwaukee & St. Paul; the Chicago, Rock Island & Pacific; the Chicago & Alton, and the Illinois Central. In the last column appear the aggregates of ton-mileage for each year on these eleven roads, representing about one-third of the entire railway movement in the country:

Years.	Gross.	Net.	Div. Pd.	E. Tr. Roads(5)	W. Tr. Roads(6)	Total 11 Roads
1872..........	$8,116	$2,891	$1,123	4,952	1,337	6,289
1873..........	7,947	2,775	1,013	5,615	1,719	7,334
1874..........	7,513	2,736	967	5,747	1,852	7,599
1875..........	7,010	2,585	1,035	5,881	1,905	7,786
1876..........	6,765	2,536	925	6,633	1,995	8,628
1877..........	6,381	2,307	790	6,351	2,211	8,562
1878..........	6,207	2,375	679	7,613	2,823	10,436
1879..........	6,653	2,741	781	9,376	3,471	12,847
1880..........	7,471	3,111	938	10,142	4,544	14,686
1881..........	7,549	2,930	1,004	11,329	4,435	15,764
1882..........	7,376	2,671	972	11,146	5,041	16,187
1883..........	7,468	2,657	924	11,935	5,768	17,703
1884..........	6,663	2,318	806	10,218	5,940	16,158

It appears that the movement of traffic over all the roads in the country has probably increased even more largely than the movement over the trunk lines embraced in the above statement. For according to the census the aggregate movement on all railroads was 32,348,846,693 tons one mile, while the movement reported by Mr. Poor for the year 1883 was 44,064,923,445 tons one mile, an increase of about 36 per cent. But the reported increase from 1880 to 1883 on the principal roads included in the above table was only 20.5 per cent. It appears, too, if Mr. Poor's compilations are not wholly incorrect, that the ton-mileage increased after 1883, reaching 44,725,207,677 tons one mile in 1884, an increase of about 1½ per cent. over 1883. At first glance this may seem inconsistent with the reported movement on the principal roads. But it is to be observed that the movement on the six western roads did actually increase from 1883 to 1884, and more than 2½ per cent. The decrease appears in the column showing the movement on the eastern trunk lines, and this is obviously due to the recent completion and vigorous operation of new competing lines, by which a very large amount of traffic has been diverted from the old lines included in the table. Yet the growth of the railroad business, as exhibited by this table, has been of wonderful magnitude, far surpassing the growth of the country in population or in wealth. Nor is this statement as surprising as to some it may seem. With the advent of new roads and cheaper rates for transportation, manufactures and trade became possible and even profitable in regions where, prior to the growth of railroads, such industry could not have been maintained. In a vast number of cases the new farm or the new mine caused the abandonment of a farm or a mine in older States, so that, without any increase in the aggregate production of the country, the aggregate transportation was enormously increased. In a still larger number of cases the new industrial development caused change in the manner of

employing the old resources. Thus the old farms ceased to grow wheat, and were devoted to the production of vegetables and live stock. Able to get transportation 100 miles at no greater cost than that formerly charged for transportation 50 miles, mills and furnaces obtained their material and ore from a greater distance, and thus the same expenditure for materials resulted in a greater ton-mileage of transportation for the railroads. Another important change was in the rapid diversion of freight from water routes to railroads. Cotton was shipped in great quantities overland, instead of by water from southern ports. Grain and provisions were shipped in great quantities by rail, instead of by lake and canal. Owing to these changes, the increase in movement of freight by rail has much exceeded the increase in population, in wealth, or in production by industry.

The changes in the quantity of freight transported, and the comparison of earnings and dividends per mile of road in operation, cast much light upon the erratic movements of the speculative market. From 1872 to 1877, the ton-mileage on the principal roads increased 36 per cent., but this greatly enlarged service was performed for less money, because the gross earnings of all roads averaged 21 per cent. less per mile operated in 1877 than in 1872. More money had been expended also in preparing to perform this increased service; the increase in number of miles of railroad in operation during the same time had been 27 per cent. In 1878 the case was still worse; the principal roads were then transporting 66 per cent. more freight than in 1872, and yet the gross earnings of all roads per mile operated were 23 per cent. less than in 1872, and there had been an increase of 31 per cent. in the railroad mileage built. These comparisons, and the fact that the dividends paid per mile operated were lower in 1878 than in any other year, point to the conclusion that the general condition of business was less favorable in 1878, after the great operators had taken a heavy load of

stocks and when they were struggling to sustain the market, than in 1877 when they were doing their utmost to depress prices. Apparently they bought in, and forced other people out, a year too soon for their own good. Again the advance in traffic from 1878 to 1881 was 51 per cent. on the principal roads, and meanwhile the increase in railroad mileage had been only 18 per cent. The gross earnings per mile of road operated nevertheless increased 21 per cent. Although the organization of pools had not enabled the railroads to get increased pay in proportion to the increased service performed, nevertheless the dividends actually paid rose to $1,004 per mile of road operated; which implied a higher rate of profit on the principal lines than had been obtained in any year since 1875, and probably higher than in any year since 1872. Finally, from 1881 to 1884 the traffic on the principal lines increased only 2 per cent., while the gross earnings per mile of road operated declined 12 per cent. This, it is clear, was because there had been added in these years new mileage amounting to 30 per cent., and a large traffic had thus been diverted from the older lines, while rates were pushed downward by increasing competition.

It is worth while to observe some curious contrasts between the record of traffic and earnings at particular points, and facts already noticed in the history of railway management and of financial changes during the last fourteen years. In spite of the increase in ton-mileage on the principal roads from 1872 to 1873, amounting to 16 per cent., there was a decline in the aggregate both of gross and net earnings and dividends paid per mile operated. This was due to the reduction in rates charged, and in some States to the direct interference of Granger legislation. At that time the market faithfully corresponded with these conditions. It had not yet learned to believe that, if a few men pleased, stocks would go up whether the roads earned anything or not. While the decline in dividends paid on speculative stocks

was very small in 1874, and was less than half of one per cent. in 1875, the table of gross and net earnings indicates that extraordinary efforts were made in these years to economize by reducing wages, and by postponing necessary repairs and renewals, a process by which roads managed for speculative purposes have in later years constantly sought to escape the effects of a shrinkage in business. Naturally this was done by the managers of roads whose stocks were active in speculation more than on other railroads, and hence the decline in the dividends paid was much greater in 1876 on speculative than on other stocks, and greater than the change in the earnings for that year would warrant. The repairs and renewals, which had been postponed for a temporary purpose, it was found necessary to make after all, at a time when the condition of the market was still less favorble. The dividends on investment stocks still averaged 7.64 per cent., and the average of dividends paid per mile on all railways was only 10 per cent lower than 1875. The traffic was larger than ever, if the ton mileage of the principal roads is a correct indication, and yet the speculative stocks fell far and fast. The average prices of the sixty active stocks fell in 1876 to $30.88, and the dividends paid on the stocks included in that list averaged less than 2 per cent. The principal cause was the war of rates, in which the trunk lines were engaged much of the year. Commodore Vanderbilt had endeavored to establish a new rule, "one rate to the seaboard," so that the charges for transportation from the interior to either of the chief seaports should be the same over all routes. But this rule would deprive Baltimore and Philadelphia of advantages deemed essential by merchants of those cities, and it was so stubbornly resisted by the Pennsylvania and the Baltimore & Ohio railroads that a prolonged struggle followed, in which the railroads sustained great losses. It may be said of Commodore Vanderbilt that he never engaged for speculative ends in a policy ruinous to

the great properties of which he had charge. His struggle, whether mistaken and unwise or not, was a genuine effort to bring about a legitimate change in the business of transportation, and was not a stock-jobbing raid.

Although a settlement was nominally reached near the end of 1876, the death of Commodore Vanderbilt, itself a cause of much disturbance in the market for railway securities, was followed by a disagreement among the trunk lines in regard to the terms of the new arrangement. The policy of Mr. Wm. H. Vanderbilt, the son and successor, did not seem to be that of his father. The war broke out afresh early in 1877, and for a time it was expected to be lasting and destructive. But it afterwards appeared that Mr. Vanderbilt was at that time acting, as he has often acted since, in connection with a powerful combination of speculators to depress prices. If he wanted to buy stocks, he had the power to prevent any settlement as to rates until he could succeed. It is believed that no combination equally strong had ever operated in the stock market prior to that time, and the energy and adroitness of the operators, and their command of enormous capital, enabled them to take advantage to the utmost of all the circumstances. Thus the worst depression in 1877, resulting in the lowest average of prices for 13 years, was mainly due to speculative influences. It is not strange that it was attributed to the deliberate purpose of some railroad managers to depreciate the prices of the securities of their own roads, in order to buy them cheaply. For the circumstances were by common consent pronounced most favorable to an advance in prices. There had been great uncertainty and a feeling of general apprehension during the Presidential struggle, and many shrewd men had sold largely of their securities. But nearly two months before the lowest point was reached in April, 1877, the electoral controversy had been settled. President Hayes had been peacefully inaugurated, and his new cabi-

net had given assurance that the financial policy of the government was to be steadfastly maintained. Hence there was at this time a remarkably hopeful and confident feeling in commercial and manufacturing circles. It was felt that, though there might be some embarrassment before resumption could be accomplished, nevertheless the restoration of the currency to a solid basis would prepare the way for a great and lasting improvement in trade and industry.

These anticipations, it can now be seen, were not wholly unreasonable. The great improvement did come in fact, though not as soon as was expected. It may even now be doubted whether the depression which preceded, of which there was little expectation early in 1877, would have been important but for three legislative changes which no one at that time anticipated. These were, first, the repeal of the bankrupt act, which caused liquidation all over the country to an extent never before known except in times of panic. Second, the passage of the silver act, early in 1878, was regarded by conservative men as endangering the public credit and the public faith, though the apprehension with which it was received passed away for the time when it was found that specie resumption had been reached, not upon a silver but upon a gold basis. Third, the act of 1878, providing that the legal tender notes should be re-issued after they had once been redeemed, contributed to cause financial apprehension. When combined with the fall in prices which the approach to the gold basis necessarily involved, and with the financial pressure which was occasioned by the preparations for resumption, these acts produced a state of industrial and financial prostration in the fall of 1878 such as has rarely been witnessed, except in times of extraordinary calamity. The results are seen in the record of railroad earnings and dividends, as in the course of manufacturing stocks and other securities.

Nothwithstanding the signs of promise everywhere else,

about March 1st, 1877, the transporting interest was made to appear at its worst. But as soon as managers had secured what stocks they wanted, and had secured them, be it observed, by frightening or forcing out the long-suffering stockholders of their own roads, whose confidence in such management had been too great for their own good, it was suddenly discovered that all the conditions favored a great advance in stocks. All controversies disappeared as if by magic. All operators were suddenly agreed that general prosperity had come again, and come to stay. The outbreak of war in Europe was used as a powerful lever to lift prices; it was argued with truth that it would cause a great increase in the movement of products for export. The upward movement was hardly under way, when the great railroad strike caused wide-spread alarm. But the most powerful speculators had bought so largely that they could not afford to permit a decline. Those who were in control of great railroads were among the first to come to terms with their hands. The desired advance was afterwards accomplished with ease, the strong men being substantially united in interest. But when prices had been advanced, it was discovered that there was still no sufficient market on which to sell. The public was not ready to buy. Business was much less satisfactory than had been expected. The legislative changes already noticed began to produce their effect upon general trade, and as a consequence, upon the traffic of railroads. The manufacturers who had hoped for great profits, and had in fact increased earnings and enlarged dividends on their stocks during the first half of 1877, found their sales shrinking and prices declining. Trade was unusually dull, and the financial world was disturbed by the agitation for silver coinage. Thus the great operators were compelled to sustain the market as best they could during the weary months of 1878, when the commercial and industrial conditions were less favorable than they had been for many years.

But in this endeavor they had one great advantage. In spite of the decline in the earnings of railroads and in dividends paid, they had the certainty that specie resumption, January 1st, 1879, would unlock enormous hoards of money and bring about a great expansion of the currency. This, they felt, would ensure a general advance in prices. Hence it was that the railway securities were at this time stubbornly maintained, and the speculative world was on the whole as zealous in efforts to support this class of securities as it had been in 1877 to decry and depress them.

From 1878 to 1881 the actual improvement in ton-mileage on the principal roads was 51 per cent.; in gross earnings per mile of road operated 21 per cent; in net earnings per mile, 30 per cent., and in dividends actually paid per mile of roads operated 48 per cent. In the market prices of manufacturing stocks, the advance was 48.19 per cent., a gain closely corresponding with the real improvement in railroad properties. In the market for investment stocks, the advance was 42.28 per cent.; but little less. In the market price of railroad bonds the advance was 25.21 per cent. But in the average price of active stocks the advance was 200.84 per cent. It may be noticed here that in 1880 the dividends were very little greater, either on speculative or on all stocks, than in 1876. But the average of prices, $30.80 in 1876, rose in 1880 to $79.81. Also in 1881 the dividends paid on the same stocks were a little over three per cent. or 50 per cent. greater than in 1876, while the average price of these stocks was $93.73, more than 3 times as much as in 1876. A stronger contrast can hardly be suggested, and it goes far to prove that in the speculative market, at least, the rate of dividends actually paid on securities has had of late years but little to do with their market price.

The organization of pools and other vast combinations and consolidations of capital was the feature of this era. Large profits were immediately ensured by the rise in securities,

and the railroads were enabled, as we have seen, to gain in dividends as much as the chief roads gained in ton-mileage. But the fatal results quickly began to appear. Wherever one system pushed out new lines to grasp additional traffic, a competing system pushed out other lines to strive for the same traffic. Thus, instead of a war of rates, there began a war of railroad building, and of all conceivable wars this has proved the most destructive to railroad properties and most disastrous to their owners.

XI.

Currency and Prices.

In the explanation of the course of prices it has repeatedly been found necessary to refer to changes in the currency, as having a great influence upon the market. But a more connected review of this branch of the subject seems essential to a full understanding of the events of later years. The writer is not one of those who believe that any calculable or conceivable volume of currency per capita, or in proportion to the business transacted, is necessary to the public welfare, to business prosperity, or to the well being of working people With modern facilities for the unlimited manufacture and use of credit substitutes for money, a nation could not be crippled in its industry or paralyzed in its exchanges if its volume of money in use were exceedingly small or exceedingly large. In time the habitual use of such substitutes would adjust itself to the public needs, however large or small those needs might be. Every-day experience teaches that a community which has once become accustomed to use of credit substitutes in 99 parts of 100 of its aggregate payments transacts its business with as little friction, with as few alarms, and as little real risk, as one which is accustomed to use 99 parts of cash and only one part of credit substitutes. But it is undeniable that, when the commercial and trading and personal habits of a community have been formed upon a certain basis, when it has been used to expect cash in a certain portion of its transactions and credit in certain other portions, and has a measurably fixed volume of payments to make, any material increase or decrease in the circulating medium does exert a most powerful influence. A contraction, though of apparently insignificant amount, will then produce a most violent reaction in prices, disturbance in settlements, and disorder in almost

every part of the societary movement. So in such a community, with established habits, an enlargement of the circulating medium, especially if it be of the denominations which naturally go into individual use in daily dealings, has all the effect of a strong draught of brandy on a constitution unused to a stimulant. More rapid movement is immediately seen; trade increases marvellously; facilities for the expansion of credit multiply vastly the effect of the addition to the monetary supply; loans and credits of all kinds are expanded, and a speculative fever is the almost invariable consequence. Nor does it make much difference whether the increased supply of money is of the best or of the worst. If of the worst, it has the appropriate effects of bad money. But in any case it has the appropriate effect of inflation.

That the working of this principle may be more clearly understood, let an illustration be drawn from actual experience. Early in 1881 the business of the city of New York was disturbed by the passage of an act of Congress which alarmed the banking institutions. It matters not to the present purpose whether their alarm was reasonable or not; the point here to be considered is that it did in fact result in a speedy deposit of several millions of legal tenders with the Treasurer of the United States, in order to provide for the retirement of national bank circulation, and thus to secure the immediate surrender of the government bonds deposited as security. Orders for such deposits of legal tenders came by telegraph and mail from banks in all parts of the country to their correspondents in New York. These orders required that the money thus to be deposited should be taken from the sums standing to the credit of country banks on the books of the banks in New York, and forwarded with as little delay as possible to the Treasurer of the United States. It afterwards appeared that the amount of legal tenders thus deposited reached about $17,000,000 within one week. This was a sudden but not a very large contraction of the cur-

rency. The amount actually in use at the time, including all kinds of money, was not far from $1,100,000,000, so that about 1½ per cent. of the entire circulation was quickly withdrawn at the chief center of commerce. What was the effect? Immediately the banks which had been called upon to deposit money for the surrender of circulation took the required amount from their reserves. But at once, being required to make good those reserves, they sent out notices demanding the payment of loans on call. The persons thus called upon unexpectedly to pay sums which they had invested in securities rushed first to other banks and to brokers, seeking to effect new loans. As the cause was one which influenced at the same time the action of most of the leading banks of this city, a contraction of loans had been rendered necessary with nearly all the banks, and the apprehension of financial disaster had also led others to call in loans as a precautionary measure, and had rendered all less disposed to put out more money on stock collaterals. As a consequence, in every direction it was found that the supply of money available for the purchase and carrying of stocks had suddenly shrunk. The holders were forced to go into the market to sell. But those who would gladly have been buyers a few days before found themselves, also, called upon to make good large loans. Instead of buying more stocks, they also wanted to sell. The persons who had unemployed funds available, as it happened, were not at that time many, previous speculation and the manufacture of new securities in very large amounts having filled the market, so to speak, as full as it could hold. But had not this been the case, the difficulty would have been but little diminished. For those who had money were affected by apprehension of financial disaster as much as those who had stocks. They realized that the federal enactment was likely to cause a continued and rapid surrender of circulation, and consequently a more severe contraction of loans

than had yet been witnessed. They reasoned that if they wanted to buy at all, it would be better to buy a little later at lower prices. Accordingly, the market suddenly became one in which all wanted to sell, but nobody wanted to buy. A certain amount of money had been available for the carrying of a certain amount of stocks, and the supply of money having suddenly diminished, there was no possibility of carrying the same amount of stocks, even a single day longer, excepting at reduced valuations. In addition, holders of securities in other parts of the country were seized with alarm, and sent them into this market for instant sale, so that with a reduced supply of money there was an increased amount of stock to be carried. The inevitable consequence was a violent reaction, and the decline in prices within about one week was such that the aggregate market value of securities handled in New York was reduced fully $200,000,000.

On the other hand, an illustration of almost weekly occurrence, during several years when the government was rapidly reducing its indebtedness, will serve to show the effect of an inflation of the currency. On certain days each week, about 12 o'clock, messengers from many establishments in Wall street were waiting at the Sub-Treasury. An official brought out and posted a written notice, announcing that the government would redeem on a certain date bonds amounting to $10,000,000. With a swift glance at the amount, the messengers scattered like crazy people, each running with his utmost speed to the house he represented. Within five minutes, orders began to pour into the Exchange for the purchase of stocks. At the same time those who had stocks to sell were warned by their messengers to hold them at higher prices. A sudden upward rush in prices occurred, and continued for some days with little abatement, strengthened by growing orders from every quarter, and all this took place before a single dollar of money had been disbursed by the Treasury. Why? The dealers instantly

knew that within a short time $10,000,000 would be added to the supply of money in the banks available for the purchase or carrying of securities. The speculators could afford to pay a higher interest for the additional supply of money than people engaged in legitimate business, and therefore could secure as much as they wished of it. All who had credit or who were able to furnish required margins made haste to embrace the opportunity to buy securities because they were well aware that the increased supply of money would create a demand, not merely for securities worth $10,000,000, but for a larger amount. Every man who sold one kind of securities at a profit was in haste to invest the money to be received in some other kind of security, which had not yet proportionately advanced. As the lightning flashed the news all over the country, orders to buy came from thousands of small towns and from scattered investors. The investors took stocks out of the market which had previously been carried with the supply of money available for the purpose in New York. Thus there was left a smaller amount of stocks to be carried in this market, with an increase of $10,000,000 in the amount of money available to carry securities. The inevitable result was a swift advance in prices. Nor was this strange. The government had extinguished the securities in which certain persons had invested their means. In place, it had put into the market $10,000,000 in gold, and had obliged them to seek other investments for their money. Men do not keep their money idle in times of prosperity or ordinary confidence, if they can avoid it. The investors who were suddenly deprived of government bonds as a safe resting place for their money, made haste to buy other securities, and those from whom they bought in turn made haste to buy still other stocks which they deemed worth holding, and thus the upward movement was passed on from the very best to the very poorest class of stocks, all advancing more

or less under the irresistible pressure of an expanded monetary supply.

It is only necessary to add that, from July, 1878, to July, 1881, the amount of outstanding government bonds was reduced $155,000,000, and the amount of currency in use outside of the Treasury was during the same time increased $456,000,000. The bondholders were obliged to find other resting places for their invested wealth. The increase in amount of money in use filled all the channels of circulation and trade, stimulated speculation to the utmost, and expanded prices in a manner rarely witnessed in the history of this or any other country. Under such circumstances, it would have been marvellous if the prices of stocks had not advanced.

The amount of government bonds outstanding affects the prices of stocks directly, by affording a safe investment for money which would otherwise be invested in negotiable securities. This supply of funds seeking safe investment naturally tends to increase with the growth of the country, and increases with especial rapidity in times of industrial and commercial prosperity. From July 1, 1872, to July 1, 1878, the change in the amount of government bonds outstanding was insignificant, namely, from $1,814,794,100 to $1,794,735,650. But there had been a great decrease in the year 1872–3, to $1,710,483,950, a reduction of $104,000,000 in a single year. Undoubtedly this redemption of public debt helped to sustain prices of securities, and to retard the decline which commenced in May, 1872. But in the year 1873–4 an increase of bonds began, and thus the demand for stocks was diminished $28,500,000 in a single year. The coincident fall in prices, if not a result, is at least such a change as would have been expected. But from 1873 to 1878, and particularly during the fiscal year 1878, when preparations for resumption were in progress, the amount of bonds outstanding was still farther increased, so that at no time was

the demand for other securities enlarged by important redemptions of government bonds, while during the last fiscal year the increase in the amount of bonds outstanding withdrew from use in other forms many millions of dollars. During this period, again, the course of prices of stocks corresponded entirely with the diminished supply of money for such investment. But from 1878 to 1881 there was a great reduction in the amount of bonds, and the change in the prices of stock was just what might have been expected as a consequence. It was, in fact, an effect not of that cause only, but of that and of other important causes. Then came a reduction of $176,000,000 in the bonded debt in 1881–2. Here the inevitable effect was to retard the reduction in prices which had begun, and it was sufficient in itself to account for not a little of the stubbornness in prices which continued in spite of the short crops in 1881. Again, in 1882–3, the reduction in amount of bonds outstanding was $125,600,000. But now the business of the country was shrinking; profits were generally small, and in many cases losses were eating up money previously invested. This at least is certain, that the reduction of debt from 1881 to 1885, $443,400,000 in amount, has not been attended with that appreciation of securities which actually did attend the reduction of debt from 1878 to 1881.

The same contradictory phenomena are observed in comparing the record of increase or decrease of circulation with the course of prices, and they demand especial attention. The effort to ascertain the precise amount of currency in use at different times during the past fifteen years is met by difficulties which not many fully understand During the earlier years, the published records of the kind of money held in the Treasury are exceedingly defective, and it is not possible to ascertain with entire certainty the exact amount of gold in the Treasury even for a year or two after the resumption of specie payments. Recent statements, however,

have rendered possible an approximation for those years close enough for the present purpose. The following table is believed to give as accurately as possible the aggregate of all kinds of money in actual use on the dates named, either in the banks or in the hands of the people. From the first of January, 1879, all the gold in the country and all the gold certificates out of the Treasury, which had been used only in international transactions or in settlements between the banks and the Treasury, became money in the fullest sense. From that date the amount of gold and gold certificates not held by the Treasury is given in the second column; the amount of all other kinds of money not held by the Treasury in the first column, and the third column shows for the later years the aggregate of money of both kinds not in the Treasury.

MONEY OR CURRENCY IN USE.

	All Other.	Gold.	Total.
July 1, 1871	$717,875,751	....	....
" 1872	738,570,904	....	....
" 1873	750,062,369	....	....
" 1874	781,490,916	....	....
" 1875	773,646,729	....	....
" 1876	749,303,474	....	....
" 1877	731,379,543	....	....
" 1878	729,215,508	....	....
Jan. 1, 1879	718,618,263	$165,885,036	$884,503,299
July 1, 1879	719,555,350	166,534,043	886,089,393
" 1880	760,447,880	306,963,900	1,067,411,780
" 1881	814,539,181	371,369,408	1,185,908,589
" 1882	832,223,072	413,946,702	1,246,169,774
" 1883	846,992,360	455,237,568	1,302,229,928
" 1884	846,872,778	462,442,096	1,309,314,869
Jan. 1, 1885	873,272,382	483,846,979	1,357,119,361
June 1, 1885	835,271,459	521,853,010	1,357,124,469

Official Treasury statements show the amount of paper of various kinds outstanding prior to resumption, and these are accepted as sufficiently accurate. No gold is reckoned as in actual use for monetary purposes prior to January 1st, 1879, although in fact a moderate amount was so in use, both in

the Pacific States and in Texas and along the Mexican border. The amount, however, was neither very large, nor did it materially change from year to year.

It is well known that the expansion in the volume of currency in 1873 was by the deliberate act of the Secretary of the Treasury, and was intended to relieve the monetary pressure during the panic. This accounts for most of the increase from July, 1873, to July, 1874, namely, $31,400,000. Thus it appears that the maximum of currency in actual use was reached after the panic of 1873, and that there had been a steady increase for three years. From that day the amount of currency outside of the Treasury was diminished every year until the first of January, 1879, when it was scarcely greater, exclusive of gold, than on the first of July, 1871. During this period of seven and one-half years, therefore, there had been three full years of expansion, followed by four and one-half years of gradual contraction. Generally speaking, the expansion of prices continued until about the first of July, 1872, but a reaction then began, which it appears the continued expansion of currency was afterwards powerless to arrest. This downward movement in prices, both of securities and of products generally, continued until late in the year 1878, so that it terminated just when the shrinkage in the volume of currency ceased. A little before resumption was actually accomplished, it became well known in the commercial world that all obstacles had been overcome, and that there was no reasonable doubt that gold payments would be established and maintained on the date prescribed by law. The premium on gold disappeared in October, 1878, and gold then began to flow into circulation, even prior to the resumption of specie payments. It is a coincidence of no inconsiderable importance that the change in the course of prices, both of securities and products also, began about the end of October, 1878. Within a few months, all the gold in the country, of which $165,-

885,036 was in use outside of the Treasury, was added to the active money in full circulation. No longer held as merchandise, or as a species of money available only for foreign trade, it circulated as freely as any other kind of money, and entered as fully into the performance of all the services which money renders.

As the table shows, however, the mere addition of gold in the country January 1st was not the only or even the chief increase of the circulation after resumption. From January 1st, 1879, to July 1st, 1881, a period of two and a half years, the increase in the currency not held in the Treasury, but in actual use by the banks and the people, was over $300,000,000, or 34 per cent. About $206,000,000 of this was in gold, and, as if that were not enough, legislation unwisely added $94,000,000 of paper of various sorts and of silver. It cannot be claimed that this increase of currency was in any respect required by the business of the country. In the previous review of railway traffic and of business in various forms, it has been clearly shown that the increase in amount of business transacted otherwise than in speculation was not sufficient to call for any such expansion of the circulating medium. In reality, a very great increase in the volume of business might easily have occurred after the stagnation of 1878, without the need of any additional currency in use whatever. For in 1878 a large part of the money in circulation was unemployed. With greater activity in legitimate trade, money would have moved more rapidly, performing more than twice as many operations within the same time, and with greater confidence in commercial circles a far greater use would have been made of the usual commercial substitutes for money, which alone would have multiplied its effective power many times. But instead of this, under the operation of the act of 1878 which prohibited the retirement of legal tenders redeemed, and other acts which thrust additional money of various kinds into the circulation,

there was added from the latter part of 1878 to the first of July, 1881, no less than 65 per cent. to the circulation.

This was inflation; enormous inflation; and it produced the natural result. It expanded prices in every direction, and stimulated speculation beyond the wildest dreams of the boldest operators. Thus it placed at the command of a few speculators the vast sums needed to control the entire market for active stocks by the magnitude of their purchases or sales, at times in complete disregard of the purchases or sales of a whole nation. Having once exercised this power, the operators were never content again to submit themselves to the public estimate of the value of securities, but were thenceforward continually striving to manufacture prices by the sheer weight of their operations, or, at a later period, by shameful abuse of their powers and trusts as railway managers. Thus the change in the character of the market for securities, from a legitimate and honest to a false and fraudulent one, is traceable primarily to the extraordinary inflation after 1878.

But another effect, still more harmful to the country, was also produced. The inflation of the circulating medium in 1879 led to an unnatural advance in the prices of commodities. This encouraged excessive trading, and over-production of many staple articles. The upward rush of prices also stimulated speculation in products to an extent never before known. Boards for dealing in grain, provisions, oil, cotton and metals were multiplied, and the rage for gambling in prices quickly spread over the whole country. Presently, when a tendency towards reaction appeared, the same inflated currency which helped operators to control the market for securities tempted speculators into gigantic operations for the control of other markets. One set of men tried to buy up grain enough to control prices in Liverpool and in this country. Another secured entire control of the cotton market; a third loaded up with iron which was never sold

until the collapse in 1883; a fourth was seized with an ambition to own all the Java coffee in the world. Day by day, these combinations grew in number and in daring, and the markets became less responsive to ordinary influences of demand and supply. In short, the trade and industry of this country, and to some extent of the whole world, were deprived of that close dependence upon actual supply and actual demand which is the only safeguard against commercial and industrial disaster.

The secondary effects were also important. Power to manufacture prices prompted men to manufacture securities, without any regard for ordinary precautions or restraints. The power to manufacture securities, and to make artificial prices for them, as an inevitable consequence led to the building of railroads without regard to public needs. In ordinary times, securities are offered to the end that railroads may be built. But in 1881, railroads were built to the end that securities might be offered. Thus over-production of railroads resulted from the unnatural facilities for the manufacture of securities, and the prices for securities. The desire of competing roads or systems of roads to thrust out new branches or extensions, in order to grasp the commerce of a new country, was immensely facilitated by the unlimited command of credit and of money, and by the wild speculative spirit, which inflation produced. On the other hand, unnatural prices for products check the foreign demand, enhance the cost of production at home, and thus disturb all trade and industry. Thus it came to pass that the exports of staple products were checked in 1880. Thus it came to pass that the cost of living and of production was greatly increased in that year and in 1881. Thus, also, production of many staple articles was stimulated far beyond the needs of the country, and the subsequent collapse of industries was rendered inevitable.

It is interesting to compare with the increase of the circu-

lating medium other evidences of business activity—interesting, but always dangerous, if one is not careful to guard against erroneous conclusions. In noting the singular precision of correspondence at times between changes of currency and other changes observed, one is constantly tempted to infer a closer connection of cause and effect between the phenomena than actually exists. But it will hardly be denied, in the presence of the facts, that changes of the currency do at times have a marvellous effect. Beginning with October, 1878, and reckoning at that date not the gold in the country, but only other forms of money as in actual use, we find that specie resumption alone, by the addition of the gold outside of the Treasury to the monetary supply, increased the currency in use by 23.08 per cent No increase of importance followed till July 1st, but from July, 1879, to July, 1880, there was a farther increase from 23 to 48.53 per cent., and during the next year to 65.03 per cent., so that for every $100 in use November 1st, 1878, there were $165.03 in use July 1st, 1881. During this time the exchanges of the banks outside of New York, which furnish the best attainable measure of the volume of business transactions throughout the country, increased as follows: 13.7 per cent. in 1879; 19.5 per cent. in 1880, and 18.3 per cent. in 1881, so that, for every $100 paid through banks in 1878, $160.80 was paid in 1881.

Now let it be remembered that the stock market had the first pick, so to speak, of all new money added to the circulation. Apart from the fact that New York is the principal monetary center, and the point at which imported gold first enters into the circulation, the stock market was able to command of new money as large a share as it pleased. Speculators in stocks could afford to pay more for money, and with less apparent risk to lenders, than any other class of borrowers, and hence took as much of it as they pleased or could. There is reason to believe that during these two

and a half years speculation absorbed a very large part of the increase. Comparison of prices shows that, though there was a great advance in the fall of 1879, nevertheless the general average of prices of products was only 18.28 per cent. higher in May, 1881, than November 1st, 1878. Deducting this difference, it appears that about 40.5 per cent. of the increase in bank exchanges was due to more numerous transfers or to greater quantities of products bought and sold, and the rest to the advance in prices. But so riotous and wild was the speculation in stocks that the advance in the prices of active stocks during the same time was over 200 per cent.

When speculation in stocks began to wane, and to lose attractiveness for the public, speculation in products became more violent, and was conducted on a broader scale than ever. Thus in 1882, the volume of currency having risen to $173.41 as compared with $100 in 1878, the average of prices mounted to $134.16 in May, as compared with $100 November 1st, 1878. Yet there was absolutely no increase in the exchanges outside of New York, but the amount was actually less by 1.6 per cent. in 1882 than in 1881. Hence it is proper to infer that there must have been, outside of speculation here, a smaller quantity of products transferred from seller to buyer in 1882 than in 1881. Yet the speculative sales had been of enormous magnitude, exceeding in 1882 those of any previous year. The sales of wheat at New York rose from 475,000,000 bushels in 1881 to 647,000,000 bushels in 1882; the sales of corn rose from 232,000,000 bushels to 443,000,000 bushels; the sales of oats from 63,000,000 to 150,000,000 bushels. The transactions in oil, also, were of enormous magnitude, rising to 1,524,887,000 barrels, about 50 times the entire quantity in the country. In the last quarter of the year alone the recorded sales were 646,909,000 barrels, while the entire production was about one hundredth part as much.

It was by such gigantic speculation that a large part of the increase of currency was employed in the year 1882. For the speculation in stocks had begun in that year to weaken, commanding less public attention, and growing each month more nearly confined to the professional operators. But in 1883, July 1st, the volume of currency had risen to $181.21, as compared with $100 in November, 1878. A considerable inflation had thus occurred during the year ending July 1st, 1883, and yet the prices of products had declined, and the prices of stocks had declined, and speculative operations, both in stocks and in products, had greatly decreased in magnitude. Finally, during the year ending July 1st, 1884, there was a small farther increase in the volume of the currency, namely, to $182.20 compared with $100 in 1878, and yet by that time the collapse in the prices of stocks had come, and there had already commenced the great decline in the prices of products which, by December, 1884, reduced the average to $95.61 as compared with $100 November 1st, 1878.

Thus it appears that, beyond a certain point, reached in the stock market in May, 1881, and reached in the average prices of products in May, 1882, the inflation of the currency, though continued, ceased to have the effect upon prices which had been the result during the years following specie resumption. This phenomenon has been often mentioned as an evidence that expansion of the circulation does not in fact cause inflation of prices. It is hardly necessary to call attention to the fact that, in any artificially-produced advance of prices, an end must somewhere be found, and after it a reaction is inevitable. Within certain limits, it is possible to force up the price of any security or product by purely mechanical means, so to speak, just as one lifts a building with jack-screws. But it does not follow that, as the hight to which the building may be raised is limited only by the length of the screws, so the hight to which prices may

be raised is limited only by the artificial stimulus that may be applied. Prices represent two parties, a buyer and a seller. Every advance brings nearer the point at which there may be no one to buy. The price of wheat may be lifted far, but if it is lifted so far, as it was in 1881, that the consumers of the whole world choose to supply themselves from other sources or to go without wheat, a reaction inevitably follows. So it is of other products, and, though speculators in stocks are fond of the contrary opinion, so it is also in the market for securtties. An artificial advance may be maintained for a long time, particularly if its artificial character is not discovered. But the time inevitably comes when those who hold begin to consider whether they cannot get larger returns for their money by selling than by continuing to hold. Especially if, as always happens, the artificial nature of the movement betrays itself, and investors come to understand that the market no longer represents a deliberate judgment as to the value of a security, but only the power of certain speculators to command money and by sheer brute force, so to speak, to control the market, distrust is sure to appear without long delay. One after another the holders sell; the investors prefer to put their money into something else; the more prudent speculators begin to apprehend a collapse, and in time those who control the market are left with the securities on their hands. Little as Wall Street likes to believe it, this is exactly the state of things which has prevailed since 1881. There has ceased to be a belief that the market is an honest one. Precisely as a "corner" in any stock is certain to be followed by the virtual death of the stock in a specutive sense, so a "corner" in the whole market, an artificial advance without reason or justification, accomplished only by brute force, will inevitably end in the death of speculation.

When markets get into such a state, and there are no buyers because nobody who has money cares to risk it against

marked cards and loaded dice, then inflation of the currency can no longer produce its usual effect. This state of things was reached in the stock market, as has been shown, when the natural reaction after the extraordinary advance was resisted and arrested in 1881. From that day to this, it has simply been a question how long the speculators holding stocks would choose to continue a struggle with each other, which can end only in the ruin of one or the other of the parties engaged. The artificial character of the market for products was in like manner disclosed, though a little later. Since 1883 there have been few who have not understood that it would be considerably safer to buy a ticket in a lottery than to engage in speculation in the markets controlled by the operators of Chicago, of Oil City, and of New York.

Thus the review discloses the fact that contraction of the circulation had an important influence in producing the decline in prices which culminated in 1878; that the vast inflation of the currency which attended and followed resumption had a most potent influence in causing the astonishing advance in prices in 1879 and in later years; and that this same inflation, by enabling the speculators to control the markets by artificial means, finally prepared the way for their decisive defeat. It might be interesting, though not wholly pertinent to the inquiry, to consider by what change of methods resumption might have been effected without bringing with it such disastrous results. It was the original intention of those who framed, and of most of those who supported the resumption act, that the redemption of legal tenders should be followed by the retirement of the notes presented and redeemed. Had this been done, had the Secretary of the Treasury been required after the first of January, 1879, to cancel and destroy all legal tender notes coming into his hands, there can be little doubt that the results of specie resumption would have been far more satisfactory. There would have been, it is true, less enthusiasm

in 1879 and in 1880; less shouting about the marvellous progress of the country, and the wonderful improvement of business, and the fabulous additions to the national wealth; but there would also have been less reason to expect the disastrous reaction from which industry and trade are now suffering. It was the intention of those who framed and supported the resumption act, moreover, that there should never be, as there was not at that time, any question about the duty or intention of the government to pay the public debt or to redeem the legal tender notes in gold coin. When the resumption act was passed there was not in the whole country a single wagon-load of silver dollars. Payment in silver, it was supposed, was rendered absolutely impossible, because the government had ceased to coin silver for many years, because of the $8,000,000 of silver coined, from the organization of the government until 1875, nearly the whole had gone from the country or had passed through the melting-pot, and because the act of 1873 had formally terminated the existence of the silver dollars as a lawful coin of the United States. Had this state of things continued, as those who framed the resumption act expected, a material part of the inflation of currency which has been seen since 1879 would have been prevented. A much more important fact is that the public confidence in the credit of the government and in the stability of specie payments would have remained unshaken. The distrust of capital, which has played so great a part in the depression of the past three years, would not have appeared. Hence it must be concluded that the enactment of the silver act early in 1878, and the enactment prohibiting the retirement of legal tenders later in the same year, essentially changed the character of the resumption for which the act of 1875 had provided, and brought about instead a resumption by inflation, of which the reaction of 1881 and the collapse of 1884 were inevitable results. It only remains to call attention to the fact that the

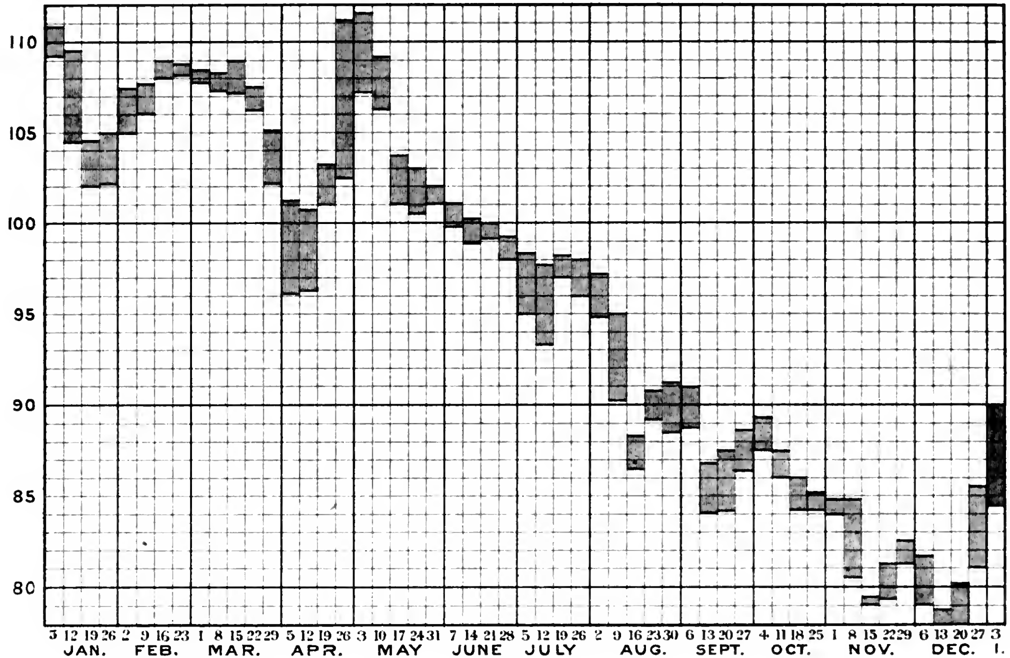
seeds of subsequent disaster were plainly sown by this inflation. The over-production of commodities had been stimulated by false markets. The excessive building of railways had been ensured by the sales of securities in 1880 and 1881. The market for securities had fallen into the control of speculators to a degree not before known, and they had manifested such power over prices that investors had begun to look with alarm upon the operations in the street. Moreover, modes of operating had been developed, in order to force down prices when there was no good reason for a decline, which were afterwards used with tremendous effectiveness by other speculators, and brought great loss upon those who had first devised them and employed them to the injury of honest investors.

XII.

The Speculator vs. The Investor.

The speculator and the investor cannot live in the same market. They are creatures to whom essentially different elements are absolutely necessary, and can no more live together than a fish can live on the land or birds can live in the sea. A want of understanding of this difference has caused a great many mistakes of speculators, and most of the losses of investors The investor buys in order to get an income from his money invested. The thought of selling at an advance never controls him ; in fact, one may say, it never comes to the investor as such. It is only when the investor is more or less tempted to become for once, wholly or in part, a speculator, that he thinks of selling at a profit. As an investor, why should he sell that which yields to him a satisfactory return on the cost? The speculator, on the other hand, thinks only of selling, and not of the income which a property may bring him while he holds it. The anticipated profits from an advance in price so far outweigh any possible gain from the property, as a wise investment, that the latter consideration has no weight in his mind. Hence the investor wants no market in which to sell, while the speculator wants the largest possible market in which to sell. The investor wants a steady market, if any, with as little fluctuation in prices as possible, and that little governed by actual appreciation in the value of property. But the speculator wants, above all things, rapid changes in prices, and changes which the general public will not readily foresee. To him those constant fluctuations are the very breath of life, which to the investor are, above all things, undesirable and to be dreaded.

Speculation has ruined the railroads of this country, so far as they have been ruined. They have soundness left only because the stocks of about one-half of them have never been active in speculation. In the broader sense, more serious harm has been



110
105
100
95
90
85
80
3 12 19 26 2 9 16 23 1 8 15 22 29 5 12 19 26 3 10 17 24 31 7 14 21 28 5 12 19 26 2 9 16 23 30 6 13 20 27 4 11 18 25 1 8 15 22 29 6 13 20 27 3
JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEPT. OCT. NOV. DEC. I.

done to the business and industry of the country by speculation than by any other cause. Changes in the currency have done harm, but chiefly through stimulating or suddenly checking the speculative spirit. In a community where no speculation exists, comparatively little harm can be done by an increase or decrease in the amount of money. In railroad building, also, speculation has had a controlling influence. In railroad management, it has been more powerful than all other causes to produce dishonesty. It has done more to cause the wrecking of railroads, and to bring about disastrous wars of rates, and to prompt legislative interference with corporations and their rights and powers, than all other causes.

The influence of speculation in the markets for products has been the same. It has destroyed the relation between demand and supply, so that production no longer has a reliable guide. This was strikingly illustrated last year in the wheat market. This country had over 50,000,000 bushels of wheat remaining from the crop of 1883. Yet speculation held up the price for a long time, relatively above the price at Liverpool, so that foreign shipments were reduced to a minimum. There was a deliberate attempt to control the markets of the whole world. The consequence was that farmers were stimulated to produce more spring wheat than otherwise would have been sown, and to hold their surplus grain too long, until the markets of Europe had been filled from other sources of supply. The curtailment of production, which would have been desirable for the producers and the country, did not come. With unusually large stocks remaining over, and with a not unusual demand from abroad, the largest crop ever known was produced. A diagram on the opposite page shows the course of the market at New York, week by week, during the year. The upper margin of the shaded portion for each week corresponds with the highest price during that week of the nearest option for No. 2 red winter wheat, and the lowest margin with the lowest price during that week, so that the extent of the shaded portion shows

the range of speculation each week. Up to August 1, it is shown that prices were sustained by the speculators as best they could. Yet it was as certain that the supply would be far in excess of the demand on the 1st of January, or on the 1st of May, as it well could be. An extraordinary and almost inconceivable disaster would have been necessary to prevent the supply from exceeding by 100.000,000 bushels, or more, the wants of the world. Then false news was carefully circulated throughout the first half of the year, and the abundance of money enabled speculators to buy a thousand bushels of wheat where consumers would buy one. Consequently, when this desperate effort to resist the course of prices over the whole civilized world came to grief, the depression in the wheat market near the close of the year was the worst ever known. All over the world prices were extraordinarily depressed by the certainty that this country had for sale a vast quantity more than it could market, and the price in Great Britain, as officially recorded, was the lowest that had been known for more than a century.

In the market for securities, investors are in the place of consumers. They buy only what they want to keep. Hence their purchases are limited in amount. But speculators buy or sell enough to control the market, if they can, and to drown legitimate dealings. If selling a little more will turn loss into gain, a terrible disaster into a glorious triumph, will the speculator hesitate? Not if money can be had.

It is essential to see that the power of the speculator, in any active market, whether for stocks or products, is greater than the power of the investor or consumer. The speculator operates on a margin, so that the amount of money which he requires is one-tenth or even only one-twentieth of the cost of the quantity bought or sold. There are few stocks which cannot be controlled in this way by the purchases or sales of a single strong operator, for investors are not of the same mind, and do not all buy or sell at the same time. Mr. Vanderbilt was supposed in 1881 to have $50,000,000 in government bonds, and could borrow the whole

or any part of that amount to use as a margin in speculation. With such resources he could have sold half the stocks dealt in at the Stock Exchange, if it had been possible for him to borrow them, in par value $500,000,000 or more. No combination of investors sufficiently powerful to resist such an assault could possibly have been formed. Eno, the defaulting bank president, who took $2,000,000 that did not belong to him, stole enough to buy more stocks of some of the largest companies in the country than are ever for sale. There is ample proof in the statistics of stock exchange transactions that nine-tenths of the recorded sales are purely speculative in character, and often a much larger share. In one sense they are mere gambling bets on prices. In another and truer sense, the speculators are simply playing with loaded dice against the men who own the property.

Hence it is the characteristic of a speculative market that its fluctuations are frequent and wild. The common theory is that speculation causes what is called "a large market," and therefore greater steadiness in price. Men want such a market who have occasion to sell readily whenever they please. Speculators want it, because there is more chance in such a market to create unreasonable movements by panic or by groundless rumors. Bankers and money-lenders prefer such a market, because they think it gives them a better chance to get back the money loaned on stock collaterals. But it is precisely what the investor does not want. If he gets the advantage of a more ready market in which to sell, he must pay for it in wilder and more unreasoning fluctuations in prices. For it is not true that the "large" speculative market causes greater steadiness in price. It is constantly characterized by startling fluctuations, and by deliberate conspiracies to put down prices and to drive out investors—conspiracies in which the directors of the very company assailed often take a leading part.

Experience proves that it is not true that the speculative market is comparatively steady. In this review of prices for the last thirteen years the quotations of active and of inactive stocks have

been compared, and it has been seen that the range of variation in the prices of the inactive stocks has been relatively insignificant. In the investment stocks, from lowest to highest, during thirteen years, the difference has been less than 47 per cent.; in the active stocks it has been 300 per cent. The same rule applies also to the markets for products. Because flour is not as much an object of speculation as wheat, the price of flour varies little, though the price of the wheat of which it is made varies much. Pig iron has become a favorite object of speculation, and therefore fluctuates in price far more than any manufactured product of iron. Cotton and cotton prints are speculative products, and therefore vary widely in price, while cotton sheetings are comparatively steady. Speculation lifts or depresses the price of wool with little regard to the relations of demand or supply, while the price of blankets or of woolen cloths remains comparatively unchanged. All the speculative markets are subject to the control of the heaviest purse, and hence are indifferent to facts. Such markets become interested only in the course of individuals. The stock market wants to know, not what this or that road is earning, but what Gould is doing.

The power to control prices gives the temptation, and usually the purpose. The attempt to control is made precisely because it is supposed that without control prices would take a different course from that desired. At the basis, therefore, it is in defiance of all reasons for an advance or decline.

The speculator cannot sell, except when other people want to buy. He must therefore sell when others see good reason, in the condition of properties and in the state of business, to make purchases. He cannot buy except when others want to sell, and hence he must make apparent reasons for selling, if no real reasons exist. He knows that the investor wants to buy when he can buy cheapest, but does not want to buy when things look worthless, or when he thinks prices are going still lower. Accordingly, if there is promise of improvement in the general condition of affairs or in the condition of a particular property,

the speculator will force down prices in order to buy. If things look badly, and real disaster to general business or to a particular property is apprehended the speculator will force up prices in order to sell. Thus a market so controlled becomes radically false. Deception is its business. It is not a good market for speculation if it is not false.

Thus it comes to pass that a large market for a particular stock is almost inevitably a speculative market, and soon tends to become false and fraudulent. An inactive market for a particular stock of any value, on the other hand, is a market in which investors control and their judgment makes the prices. But it is to be added that an active market for any particular stock tends with almost irresistible power to make that stock less valuable to investors.

An active market offers an almost irresistible temptation to the railroad manager to speculate in stocks. He is tempted first to "support the stock" of the roads with which he is connected, and for that sort of effort misguided stockholders too often give him warm praise. It is not long since the most successful railroad manager and railroad builder in America was called, in the Stock Exchange, "a worthless leader," and "a bad man to be associated with," for the reason that he never tried to support the stocks of the roads in which he was interested. But none of his railroads are in bankruptcy, and he has never been known to get up a war of rates in order to affect the prices of stocks. After sustaining prices for awhile with his own means, the manager is next tempted to support the stock with the funds of the company. Within the past two years more than one defalcation and more than one railroad wreck has come from that temptation. But, having once begun to consider the market price of the stock with the impulse of strong personal interest, the manager is unconsciously led to shape all his conduct of the affairs of the corporation with an eye single to the Stock Exchange. He is almost forced to swerve from the wisest course for the property and to choose the wisest for speculative

results. He becomes associated in interest and action with those who are engaged in speculation, and depends upon them for support in the corporation.

The consequences of this kind of management are seen, first, in the conduct of the corporation within itself, and in its relations to the public. There would have been little temptation to make false statements of earnings or to keep deceptive accounts, or to conceal expenditures under the pretext of construction, if managers had not been governed by speculative considerations. There would have been little temptation to "water" the stocks of old and long established companies, had there been no active speculation in them. The sufficient proof is found in the fact that the stocks which have not been objects of speculation have in no case been thus inflated. Men manufacture new stocks for the purpose of selling, and for no other purpose whatever. No investor cares to have two shares instead of one on which to draw dividends, or to be subjected to taxation on two shares instead of one, if the aggregate sum to be divided is to remain the same. Nor would there have been the same temptation to declare dividends not earned, or to pay dividends from the proceeds of bonds sold, or to deceive the public by fraudulent reports, or to resort to legal chicanery in order to fortify corporations against creditors, had speculation not controlled the course of managers. The fixing of rates for temporary interest, and not with a view to permanent usefulness to the public, and the frequency of wars of rates between railroads, have been largely due to the same cause. The corruption of the judiciary, the bribery of legislatures, the contrivance of bills to affect prices, or to crush rivals, or to control the terms of competition, have been the natural result of speculation by railway managers. Its effect has been seen next in the peaceful relations of railway companies with each other. In the making of leases and contracts between different roads speculation has had a powerful influence to warp the judgment of railroad managers. Instead of considering what course

would be wisest for the permanent interest of a corporation, they have considered what course would have the most speedy and powerful effect upon speculative prices. Contracts between railroads have many times been controlled by such considerations, and railroads literally by the score have been wrecked and landed in the bankrupt courts, because their managers in times of hopefulness or prosperity were tempted to chose the path which would lead to the quickest and largest rise in stocks, rather than the path which would end in the surest and the largest dividends to the owners.

But it is in the building of railroads that the influence ot speculation has been most powerful, and most disastrous. In plain truth, it has done more than all other causes put together to cause excessive and unwise railroad building. In the five years 1874–1878, during which speculation was stagnant and scarcely any market for railroad securities could be found, only 11,407 miles of railroad were built in the country. As many miles were built in a single year, after revived speculation had opened an unlimited market for securities. In that halcyon time of speculation railroads by the score were created for no other purpose than to give operators a new set of securities to handle. Roads were built by the score as feeders or connections to secure for great corporations the traffic of Western States, which would never have been constructed had not managers been governed rather by the immediate price of stocks than by a regard for the permanent interest of the corporations. It was no longer a question whether this or that branch or extension would be of permanent benefit to the corporation made responsible for it. It was enough, at that time, that enormous fortunes could be quickly made by managers through the lifting of one set of securities or the depression of another. Hence it was that, month after month, the stocks of great corporations were advanced in the market with immense enthusiasm, by announcements of important additions completed or secured, which would bring in new traffic, enormous in quantity

and incalculable in value. Whether the new business thus attained proved satisfactory or not, whether the great corporation was really strengthened or wrecked by the outlay or the increase of indebtedness, in either case the object of the managers was attained if the securities in which they were interested were advanced or depressed according to their wish.

The fact that new roads were not likely to pay dividends, or even to pay interest on their bonds, was not a hindrance. In many cases they were never meant to pay; their managers never expected any advantage, save through the sale of their securities in the stock market. These were railroads created of paper, for paper and by paper, and as to their effect upon the prosperity of the country, the projectors and managers did not feel called upon to take thought. There was also developed greater trickery in the placing of new securities than had ever been practiced before. Few of the new roads would have been built, had investors alone been called upon to advance the money. The methods of the investor were dropped. Careful investigation of the prospects of proposed lines was put out of the question by the operations in the street. Men by the score were found to buy, not because they knew anything of the lines proposed, or of their possible business, or of their cost, or of the competition they would have to meet, but solely because they were informed by "the right people" that these securities were certain to be advanced in price. Then came the issue of other securities to hide the burdens which old properties had assumed, or the effects of new competition; to cover the failure to earn dividends or interest; and in many cases to provide means for the speculative warfare by which the price of the stock was artificially advanced. Thus at every point the interests of stockholders were disregarded, and the interests of speculators in the stock market were alone considered. It was an inevitable consequence that the business of transportation became less profitable. Within three years 20,000 miles of railway were built, to divide the business which 80,000 miles had before been doing.

But for the speculative market, there would have been no sale for the securities with which a considerable proportion of the new mileage was built. Fewer roads would have been constructed, and many millions of the capital of the country would not thus have been unprofitably invested, and the larger capital previously invested in the older roads would not have been rendered unprofitable by reckless competition.

For presently the building of new railroads began to take definite shape as the most effective form of railway warfare. In many cases, the capitalists who controlled the great corporations were themselves interested in speculation, not only as large holders of the securities of the roads which they directed, but in operations for a decline in the stocks of competing roads. The struggles between the great companies were no longer limited and regulated by regard for the permanent interest of those companies, but by the desire of managers to cause a speedy advance in their own stocks, or a speedy decline in the stocks of rival companies. Systems of roads began to fight with each other, and if one had a new line reaching an important traffic, others felt that it was necessary to build lines to reach the same traffic. Thus it came to pass that in many parts of the country there were too many railroads, and the traffic was too small to support them all. With patience and good judgment, in many cases, the new roads might have been so managed as to secure in the end a fair proportion of the rapidly increasing traffic. But the haste to force up securities, on the one hand, and the thirst to make money by the decline of other securities, on the other hand, led in almost every instance to ruinous competition, in which one or both of the parties were brought to the door of the bankrupt court. Each felt that its traffic and the sources of its prosperity were threatened, and was disposed to resist. Thus wars followed, and contracts to restrain competition were broken up, and rates below the actual cost of transportation were in many cases long maintained. The effect upon the prosperity of the companies, both new and old, was most

disastrous. Presently debts were largely increased, for bonds had been sold in order to pay the accustomed dividends. When the sale of bonds became impossible or difficult, many of the roads were compelled to pass dividends, or to seek shelter from creditors in the hands of a receiver.

Finally, the facilities of a large market, and the fierceness of this warfare by railroad building, opened the way for the construction of parallel roads, which had no other reason for being except the speculative or the blackmailing schemes of individuals. Roads were built in which more than $100,000,000 was invested, for no other purpose than to break down the prices of securities, and to enable those who had sold such securities to reap large profits. Many of the parallel roads, which have been so destructive to the interests of well-established corporations, owe their existence to this motive. If there had been no such market, if investors only had been at hand to buy bonds and stocks, and if railroads could not have been built unless substantial investors had found good reasons for putting their own money into them, the history of the past five years would have been very different. The building of the "Nickel Plate," a road closely parallel with the Lake Shore, nearly its entire length, was an undertaking which in ordinary times would have had no attraction for any man of sense enough to possess capital, and which, if undertaken, would in ordinary times have come to grief. But because bonds could be placed without difficulty, in amounts sufficient to cover the cost of the entire road, while those interested could make great profits by selling the stock of the Lake Shore, men were found to undertake the work. The West Shore road illustrates in its complicated history nearly every vice of management which the speculative fever engendered. Enormous sums were made in the construction; enormous sums were made in the purchase of rights of way; property previously worthless was absorbed at a fictitious value; large sums were made by speculating for the decline in the securities of the New York Central, and, finally,

when difficulty came, the management did not hesitate to entangle the property in legal complications so ingenious that the courts have not yet been able to evade them. One of the worst features of this speculative war of railroad building was the great injury thus deliberately done to old and well-established companies. A transportation company has no right to be shielded from legitimate competition, whenever it may arise But the building of new roads during the years 1880–1882 was in many cases prompted by no legitimate demand. It was intended to create a competition neither proper nor legitimate, and those who devised such roads never hoped to get profits for themselves or others by such competition, or by serving public interests. The profits for which they hoped, in not a few instances, were derived entirely from the injury done by the establishment of rival lines to the securities of old and well-established companies. The more rich and prosperous railroads were in those days, the more sure they were to be assailed. In retaliation, the old companies resorted to the same weapons, and they also pushed branches and fostered the building of lines in new territory, for the purpose of grasping competitive traffic or of destroying the business of rivals. In cases not a few, they covered the losses sustained in the struggle by the issue of additional bonds, and thus continued to pay dividends which were never earned.

So far, the sins observed for which speculation has been responsible are rather sins of intense though unwise zeal for the companies in which managers were interested, and for their associates, than of treachery to their interests. But speculation also tempts managers to many acts of bad faith and dishonesty. In the times under consideration a great number of branches or extensions were built only because they could be used, first, as levers to raise or depress the prices of securities, and second, to enrich the managers without regard to public or corporate interests. Securities were placed on the market and often at prices ruinous to the corporations ultimately

bound by them, because the managers and no one else had opportunity to know their value. Securities of great value, which could readily been sold in the market, were given for property not self-supporting and of little or no value, because dishonorable managers were thereby enabled to enrich themselves. New roads were projected, worthless or ruinous to the companies made responsible for them, solely for the profits to be made in construction companies, or in buying valuable lands before the routes of the new roads had become known. Dishonest managers found profits in purchasing rights of way, in erecting buildings, and in securing mining and other privileges. In many cases, too, the building of new roads served as a cover under which bonds of old corporations were issued, and while the ruin of those corporations was thus prepared, the proceeds were applied to the payment of dividends not earned. When investors were led by such means to believe in the assured and impregnable prosperity of the companies, the prices of stocks were fraudulently advanced in time to enable the dishonest managers to sell their own securities. In these and in a thousand other ways the influence of speculation upon the management of corporations was such as to destroy for investors the value which their properties formerly had.

But the worst came when the managers of several railroad companies were themselves caught in the position of speculative sellers of their own stocks. Then they set themselves deliberately to depress the prices of those stocks in order to buy the more cheaply, or, if necessary, to wreck their railroads, and thus to enrich themselves by the losses of investors who had trusted them. The weapons for such a warfare lay close at hand. Pretexts were offered by the building of new railroads and the struggles between rival companies. Strife for new territory had too often resulted in a competition regardless of the interests of stockholders on both sides. In many cases this reckless and ruinous strife was prompted or prolonged by the private interest of managers, who saw and seized their oppor-

tunity to profit largely through speculative sales of the stocks of their own companies. Having then the power to continue the struggle as long as they pleased, and to make it as desperate and as ruinous as they pleased, they really held the stockholders by the throat. They became worse enemies than any rivals conceivable. Thus speculative managers were found to do more harm to the companies they controlled than any foe, and in some cases they did more to destroy the credit of their corporations than all other influences, near or remote.

This evil is not new, nor is it now discovered for the first time. Many methods have been suggested to prevent it. It has been proposed in some corporations to prohibit dealings in their stocks by managers and directors, but all such provisions are plainly useless. It is found easy to evade them, for managers can buy and sell through others at pleasure as long as the present modes of issuing and holding stock prevails. Speculation by leading stockholders often does nearly as much harm as speculation by the managers themselves, especially if those stockholders have a controlling voice in the election of managers. It has been urged that a class of men can be elected who will not engage in speculation; but the fact is that stockholders do not and will not apply that remedy. Many are largely interested in speculative operations themselves, and desire a management for speculative purposes. Often they are easily deceived as to the conduct or motives of managers. Perhaps Mr. Vanderbilt has declared more frequently and emphatically than any other railroad man in the country that he had nothing to do with speculation, and yet for years he has been considered the greatest speculator in Wall street. In the review of prices for the past eight years, since he came into the control of railroad property, it has been seen that he has done more than any other railroad manager to bring about wars of rates for personal reasons, and thus has done more to break down the prices of the stocks of his own companies than any other railroad manager in the country. If it is easy for him, with such a record, to declare

that he never speculates and is never influenced by speculation, and to make a great many people believe it, other railroad managers who have been far less conspicuous in speculative operations, would find it more easy to play the same part with success.

It was testified by General Devereaux and Mr. Blanchard, before the Senate investigating committee, not long ago, that the railroad companies had reached such a point that they absolutely needed the protection of government against themselves. What they really need, on the contrary, is protection against speculation by their managers and their principal stockholders. It is not to be expected that those who now control railroads for speculative purposes, and who use their opportunities to enrich themselves at the expense of stockholders, will favor legislation to bring about any such reform. It must be brought about, if at all, by the real investors in securities of this country. For it has come to this: If the investor does not take measures to cripple the influence of American speculation, it is certain that speculation will soon destroy the value of American investments. All the great evils that have afflicted the railroad system of this country have come from striving to make ownership in American corporations not only transferable, but so readily transferable that many corporations can hardly be said to have any permanent owners In order to remove the evils which have brought the whole railroad system into great danger, if not to the very verge of bankruptcy, it is necessary to effect a reform in the opposite direction It is necessary to make such changes that the railroads shall have a body of permanent owners for a great part of their stocks and shall be entirely controlled by those owners, with the least possible dependence on speculation.

It would be possible for corporations themselves to take such steps as to prevent, in a great measure, the lending of their stock by holders, and particularly by officers and directors. If speculators cannot borrow the stocks of a company they cannot effectively assail the price by speculative sales. It is rarely by the use

of the floating stock in the market that successful attacks are made upon the stock of corporations; on the contrary, in nearly all cases, great blocks of stocks belonging to managers and the principal stockholders are freely loaned, in the belief that it is in the long run easier to support prices by encouraging speculative sales, and more advantageous to those interested, to have a large market in which to operate. This feeling, co-operating with the personal interest of large holders to get what they can for the use of their stocks, would doubtless make it impossible to secure the adoption of effective rules by many of the great corporations to prevent the loaning of stocks. It would be possible to reach the same end, at least in a measure, by legislative enactment. In more than one of the States it has already been held that contracts to deliver property which the seller did not own were contrary to public policy, and such contracts have been forbidden by law. It would be possible to go a step further, and to require that stocks should be so held and so registered that the lending of them for speculative purposes could be detected, and should constitute a bar to the right of holders to occupy any official position or to vote in the companies, or even to receive dividends. But neither these nor any other regulations, however stringent, would be of avail in respect to the stocks of those companies which pay no dividends, and in which there is no contest over the election of officers. Many of the large railway companies in this country, unhappily, are of that class.

After all, the investor has in his own hands the only complete remedy. If he chooses, he can get out and stay out of any stock which becomes active in the market. No other line of distinction is effective. As soon as the investor finds that other stockholders, whether connected with the management or not, are making the stock active in speculation, he may be very sure that the management of the company will not long be for the interest of its real owners. Whether they deliberately intend it or not, those who control its management will presently begin to direct all the operations of the company with a view rather

to daily fluctuations in prices than to its permanent interests. When that sort of thing begins, it is fair warning to an investor that it is time for him to sell. If he pleases not to regard the warning, he has only himself to thank if his attention is next called to the matter by an invitation to defend his rights in proceedings for foreclosure.

American securities ought to be the best in the world, and the most widely sought. The rapid settlement and growth of the country supply a solid basis for continued advance in prosperity such as no other great country has. The enterprise and thrift of the people, their rapid advance in useful arts and in wealth, their high degree of industrial independence, their unsurpassed freedom from danger of foreign invasion or of costly foreign war, their marvelous inventive power and their liberal institutions which open to every man opportunity to aid in the development of the country and to share in the rewards of such effort, ought to make the securities which represent the industrial operations of such a country the choicest and most desirable to be found on earth. They would be if the American nation would insist that common honesty should prevail in financial dealings. But it is the well-known fact that American securities are not thus in favor.

The American people have not insisted that common honesty should prevail in the dealings of the Government and the States with the corporations. Yet it is but just to say that the complaints have thus far been more theoretical than practical. The Granger laws were clearly contrary to sound policy, and contrary to strict justice. The government had no moral right to put a new construction on the franchises granted to corporations to its own advantage and to the disadvantage of investors, long after the fixed investments of money amounting to thousands of millions had enriched the States and the people beyond all hope or calculation. Yet the great prosperity which the best roads in the Granger States have enjoyed, notwithstanding the restraints imposed by the laws, go far to prove that the laws finally enacted,

however vicious in principle, did not work great practical injustice to the companies as respects the rates they were permitted to charge. At the outset it was thought that these laws were only one step removed from confiscation. But the Illinois Central, the Chicago and Northwestern and the Chicago and St. Paul still appear by no means worthless to their owners. The treatment of Pacific railroads by the Government was, to say the least, straining to the utmost the rights of the Government against companies which would never have overcome the fearful difficulties of their undertaking, and conferred upon the nation and the people the incalculable benefits of speedy rail connection between the Atlantic and the Pacific, had the compact between the Government and the builders been construed at the outset as it is now. Yet it is but just to say that those roads have earned enormous sums for their owners, and would be singularly profitable and valuable now if they had been always prudently managed, and if government had not unwisely impaired the value of their franchises by too rapidly encouraging the completion of competing lines.

Honesty is clearly needed in the treatment of corporations by the people, and of the people by corporations. Honesty is needed in the courts, and has been conspicuously lacking in the action of some courts within the range of speculative influence. Perhaps nothing has done more to make American securities less valuable abroad than the shameful conduct of some of the courts where judges have appeared to be virtually owned by dishonest speculators. Honesty is especially needed in the management of railroads and in the relations between the corporations and their officials and chief stockholders. But, human nature being what it is, honesty cannot be expected while the influence of unrestrained speculation is tolerated. Unless that can be changed, either by voluntary corporate action or by legislative regulations in a measure controlling the conduct of corporations, it will be long before American negotiable securities will attain the value which they ought to have.

XIII.

Real Estate Mortgages.

Thus far in this survey, attention has been confined to securities which are commonly called negotiable. But these are not the only investments known in this country, nor are they the only securities which possess the quality of negotiability. We may pass by the many varieties of stocks or shares in trust companies, gas or insurance companies, mining companies, and associations for various purposes, which represent in the aggregate the investment of a large amount of money, but do not appear to call for especial investigation. But there remains one large class of securities, which is in some respects more important than any other. Real estate mortgages are not only negotiable, but are very commonly transferred, and they represent in the aggregate an enormous investment of money. But the stocks and bonds of corporations, and the bonds of local, State and National governments, possess in a higher degree the quality of ready negotiability, and owe part of their value to that fact. Though a good real estate mortgage for a reasonable amount is one of the safest forms of security, such a mortgage bearing 6 per cent interest does not command so high a price as a bond or stock offering the same return, because the bond or stock can be more readily turned into cash at the will of the holder.

As respects the degree of security afforded, the real estate mortgage ranks at least as high as any other kind of investment. Land anywhere in this country is likely to appreciate in value. Its gradual absorption for industrial or other uses ensures a continually increasing demand as population and business enlarge. The proximity of capital invested on other land, the improvement in means of communication and transportation, the advance in condition of society, the

improvement of roads or streets, of drains and markets, the enlargement of opportunities for business or industrial establishments, and perhaps even more the improvement in schools, local governments, and religious and benevolent establishments, all tend to render land within the reach of such improvements more valuable. But for a long term of years, unproductive property may remain without an immediate demand, and hence may have merely a nominal value. If the land is productive, however, either directly, by means of mining or agriculture, or indirectly as the site of residence, trading or industrial structures, and if it thus yields a regular income, it becomes a peculiarly good security for an amount which can be computed with some certainty from its productiveness. If it is mining property, it is affected by the uncertainty of mining operations, and if it is devoted to mercantile or manufacturing uses, it is affected, at least in some degree, by the uncertainties and fluctuations in those branches of industry. But if the land is cultivated in farms, its productiveness is as certain as the recurrence of seed-time and harvest, and in the long run depends only on the fertility of the soil Hence for many years mortgages on productive farms have been justly regarded as in many respects the most desirable of all forms of investment.

Of the amount of such mortgages at any time outstanding no records are attainable. In some of the States, it is true, records are preserved of the new mortgages recorded and of the old mortgages released or cancelled each year, but these only enable the inquirer to form some approximate idea of the aggregate amount of mortgages that may at any time be in force. Thus in the State of Ohio, where records of this kind have been compiled with more or less accuracy for a quarter of a century, it still remains quite impossible to determine with precision what amount of indebtedness is represented by mortgages yet unsatisfied. Prior to 1868,

the records in that State did not give the amount of mortgages cancelled each year, and for some years after that date the record of mortgages released was so far imperfect that an accurate statement is impossible. Nevertheless, upon comparison of the records in Ohio since 1870, it may be inferred that about 11 per cent of the taxable values of all real estate, exclusive of railroads, changes hands every year, and that mortgages are filed each year representing about 6 per cent of the taxable value. The proportion of mortgages released to mortgages recorded has never risen above 75 per cent., and for a term of eleven years it appears that mortgages covering $634,589,573 were recorded, while mortgages covering only $362,914,793 were released. Making full allowance for the probable greater inaccuracy of the record of releases for the earlier years, it is safe to say that at least one-third of the money secured by mortgage during all this period appears on the record to remain still so secured, in amount more than $210,000,000. Roughly speaking, mortgages are recorded in that State each year for about 6 per cent. of the taxable value of all real estate, and mortgages are released for about 4 per cent., leaving an increase in the mortgage indebtedness averaging about 2 per cent. yearly. This is something less than the increase during the same period in the assessed value of real estate for taxation. At the beginning of that period, the assessed value was about $700,000,000, and at the end of that period, excluding railway property, it was about $1,000,000,000. But any reasoning based upon the supposition that the course of things in other States has been the same as in Ohio might be altogether erroneous. That State has been peculiarly fortunate in its industrial development, and in its growth in population and wealth, and, on the other hand, it has changed in its industrial character much more than most of the Western States. It is possible, indeed, there is some reason to think, that a larger proportion of old mortgages has been extinguished in

the great farming States of the West, in which there has been less development of manufacture and mining, and relatively less growth of cities and towns, than in Ohio. On the other hand, in some of the old Eastern States mortgages are known to be outstanding, which have remained unsatisfied and undisturbed as permanent investments for 80 or 100 years, and the number of such mortgages can only be conjectured. Probably they are much more numerous in the older Eastern States than in the West.

If it be supposed, however, that one-tenth of all the real estate in the country changes hands yearly, and that the proportion of mortgages given is not less than one-half of the value of such real estate transfers, it would appear that the new mortgages created on this account alone must exceed $1,000,000,000 yearly. For, according to the estimate given in the census volume on wealth and taxation, the value of real estate in the country exclusive of railroad property is about $20,000,000,000. Next, if it be supposed that a third of all this property is constantly under mortgages of a more permanent kind, amounting to 60 per cent. of its value, the amount of money represented by such investments would not be less than $4,000,000,000. In any case, it seems probable that a larger amount of money is represented by outstanding real estate mortgages than by any other one form of investment in the country.

Concerning the rate of interest paid on such loans, the lack of accurate records is very embarrassing. It is known, however, that there has been a gradual decrease during the past fifteen years, in correspondence with the reduction in the rate of interest demanded for money in other investments. The rate of interest varies widely in the different States, but an approximate idea of the average paid may be obtained from the results of an investigation by a committee of the Connecticut Legislature, six years ago, in which the mortgage investments of eight of the great insurance com-

panies were carefully compared. Four of these companies were lending on mortgages almost exclusively (90 per cent.) at the West, and the others were lending on mortgages exclusively at the East. It was officially reported that the interest actually paid on all these loans, amounting in the aggregate to about $147,000,000, for each of four consecutive years, was as follows :

	1875.	1876.	1877.	1878.
Western loans, per cent..........	8.2	7.8	7.1	8.2
Eastern loans, "	6.9	6.5	6.4	6.1
Average of all per cent........	7.55	7.15	6 75	7.15

It should be remembered that the years covered by this investigation were years of extraordinary depression and disaster, during which the failures became more numerous than ever before. If in such a period, and even in the worst of these years, the interest actually paid to the great companies averaged over 7 per cent at the West and over 6 per cent at the East on the entire amount invested by them on mortgage loans, it will be readily understood that the average returns for any term of years, including a period of prosperity as well as a period of adversity, would be found much more favorable. In fact, it afterwards became known that one of the important companies referred to in the report of the committee, the Connecticut Mutual Life, which had been compelled to take upon foreclosure a considerable amount of real estate at the West upon which in that time of extraordinary depression it could not realize the full amount loaned, actually sold the same property within two years after at a clear profit of 13 per cent

About the same time, investigations called out testimony from a great number of agents, who had been engaged for many years in placing loans mainly at the West. They gave, mainly under oath, full details of the results of such loans

made, exceeding in the aggregate $97,000,000, and showed that foreclosure proceedings had been commenced on loans embracing less than 1 per cent. of the entire amount of money thus loaned. During all that time the interest and the principal had been paid on 99 per cent. of the loans without resort to foreclosure proceedings. It appeared from their testimony, also, that in the aggregate the lenders had actually recovered more than the amount loaned, even in the cases where foreclosure proceedings became necessary. In most cases, the agents themselves, knowing the value of the property upon which they had recommended the loans, preferred to pay the amount and to take the property as their own, afterwards selling it at a considerable profit. The aggregate rate of interest paid on all the money thus invested was in excess of 8 per cent. This is evidence, it is true, only as to the result of investments in Western mortgages, and during a period when the average rate of interest was somewhat higher than it has been since. Nevertheless, with ample allowance for the change in the current rate of interest, which in some of the States has been recognized by a change in the laws, it is clearly apparent that the average rate actually paid on money secured by mortgages in this country must still be considerably in excess of 6 per cent.

This rate is to be compared, not with the rate nominally paid upon securities which sell at a price above par, but with the rate of interest upon the market value of such securities. Thus the dividends returned on National bank stocks for the year 1884 averaged 6.5 per cent. But it has been seen that the average price of bank stocks of New York and Boston at the lowest point in 1884 was 147.61, and upon that price the interest paid would be only about 4.4 per cent. The average paid on the investment stocks quoted in tables of prices was 7.72 per cent. in 1884, but the lowest average of the prices of those stocks during that year was 133.49, and on that price the dividends paid averaged only 5.78 per cent. The census

of 1880 gave a more complete account of the outstanding railroad bonds than has been anywhere else obtainable, and it was there estimated that the average rate of interest paid on the bonded debt of railroads was then about 5.36 per cent. But the average price of railroad bonds quoted, including securities representing many of the most important roads, was in that year 115.62, as has been shown in chapter IX, and upon that price the rate of interest paid would average only 4.3 per cent. The latest dividends paid on fifty manufacturing stocks which are quoted in the tables of prices, namely, the dividends for the first half of 1885, averaged 5.49 per cent. on the par value. But the average price of the same stocks was 113.04, and the dividends paid averaged upon that price only 4.85 per cent. The average dividends paid on the active railroad stocks for the first half of 1875 were only 2.08 per cent. on the par value, but the average market price of the same stocks, January 1st, was 45.64, and the average interest on that price was only 4.57 per cent. Although the nominal rate of interest on bonds of States and cities averaged in the census year 6.17 per cent., and the market price of those quoted for that year was 96.90, nevertheless it is a fact to investors unhappily well known that an unusually large proportion of securities of this class have been entirely repudiated, or are in chronic default. In estimating the actual return upon money invested, it would be necessary to deduct on account of the non-paying or the repudiated bonds, and such an allowance would reduce the actual returns on municipal and State bonds considerably below 6 per cent. Finally, the rate of interest obtainable on government bonds is now only about 3 per cent. on their market price. Thus it appears that real estate mortgages, even in the later years since the average rate of interest has been somewhat reduced, return on the whole a higher rate of interest to the investor than any other class of securities sufficiently important to be separately considered here.

Were it possible also to make an accurate comparison of the proportion of securities in each class upon which no returns to the investor were obtained, but which involved actual loss of principal as well as of interest, the contrast would be most striking. Beyond a doubt, the proportion of railway defaults has very far exceeded 1 per cent of the amount invested. The railroads defaulting during the four years ending with 1875, it will be remembered, were shown to have outstanding $835,000,000 in bonds, or 45.5 per cent. of the entire amount of railway bonds outstanding at the beginning of that period, and $626,000,000 in stocks, or 32.1 per cent. of the entire amount of railway stocks issued at the beginning of that period. It has been shown, moreover, that the foreclosures within the last thirteen years have affected more than 50 per cent. of the entire capital invested in railroads at the beginning of that period, and more than 27 per cent. of the entire capital invested at the end of that period. The failures in manufacturing, also, have unquestionably far exceeded 1 per cent. on the capital invested, the proportion which it appears that the loans upon which foreclosure was required bore to the entire amount of loans reported on real estate mortgages. Even among the National banks, justly regarded as of all corporations nearly the safest and soundest, shareholders have been obliged within the past twenty-one years to pay assessments amounting to $8,901,750, an average of over 1.7 per cent. on the entire capital of all National banks even at this time, when their aggregate capital is larger than ever before, and besides this the stockholders of the banks that have failed have been obliged to bear the loss of a very large proportion of the capital invested. In only three banks in New York City, during the year 1884 alone, the loss to stockholders amounted to $5,700,000, more than 1 per cent. on the capital stock of all the National banks in the country. Judged by these tests, the investments in real estate mort-

gages must be reckoned by far the safest, as well as altogether the most profitable, of all the forms of investment which have been considered.

The main objections to securities of this class are that they are not readily negotiable, and that delay occurs in recovering the money invested when the lender is obliged to resort to legal proceedings. As to these objections, it is pertinent to consider, first, that if the necessity of resorting to legal proceedings arises more rarely in loans upon such securities than in other forms of investment, the inevitable delay of such proceedings must be reckoned to the advantage of the investment on real estate mortgages. But again, it has been found in the survey of other securities that a high degree of ready negotiability appears to bring with it as an inseparable consequence the uncertainty, the wide fluctuations, and the dependence upon an unreal and fraudulent market which result from the prevalence of speculation. In proportion as securities are beyond the reach of speculative influence, and consequently lacking in ready negotiability, they are found steady in price and reliable for investors. It would be of poor service, either to the investors or to those engaged in the negotiation of mortgage loans, if by the establishment of any board or exchange, speculators could get opportunity to attack and to cry down the credit of individual borrowers, or of agencies or bankers by whom mortgage loans have been guaranteed, as they have been enabled to break down the credit of great corporations within the past ten years.

But the difficulties observed might be fully overcome without subjecting real estate mortgages to speculative attacks, or to the mischievous influence of a speculative market. It is possible to render such mortgages negotiable to almost any extent that may be desirable. Much has been done already in this direction, by the establishment of well-known and responsible agencies, whose guarantee of the soundness

of a title and the safety of an investment is of unquestioned value. Such firms and companies are already engaged in transacting a large business, and, notwithstanding the payment of a considerable proportion of its debts by the West to the East within the past few years, they still find ample opportunity to invest money at most favorable rates and with good security. But the great change requisite is in the laws governing the record, the ascertainment, and the transfer of titles to real estate, and the enforcement of liens upon such property. In this respect a reform is exceedingly important, not only because of the great benefits which it would confer upon those investing money on real estate mortgages, but for other and broader reasons.

Regarding first the legal provisions for the enforcement of mortgages, there has been much change within the past ten years, and it must be said with regret, the change has not been in all States for the best interest of the people, or consistent with a strict regard for honesty in dealings. In Indiana, for example, some years ago, as if for the express purpose of making it hard for real estate owners or buyers in that State to borrow money, a law was passed subjecting non-resident holders of mortgages to most unjust and inexcusable embarrassments in the enforcement of their claims. If it had been the object of the Legislature to deprive the energetic and enterprising young men of the State of the same opportunity to acquire property which they could enjoy in other States, and so to drive them to seek homes elsewhere, if it had been the object to deprive land-owners of all chance of borrowing, except in such scanty and limited money market as the Hoosier State possessed, and to diminish to the utmost of its power the demand for the purchase of real estate in Indiana, shrewder steps to that end could hardly have been devised. But in other States, creditable changes in the law regarding mortgages and their enforcement have been made within the past few years, and in many

others the long established laws, which still remain unchanged, are as fair to creditors and as just as could be desired. The scope and limits of this work do not permit a detailed account of the legal provisions of different States bearing upon this form of investment. Nor would most investors be enabled by such a review to avoid the assistance of a lawyer or agent. The only wise course, for those meditating such investments, who have not at hand men of legal talent, experienced in these inquiries, is to invest through a house or company of established reputation for ability and integrity. The names of such agencies can be readily ascertained, and they make it their duty to be constantly prepared to advise the investor, not only as to the laws of the different States which affect the enforcement of such claims, but as to the responsibility of the borrower and the productive value of the property upon which a loan can be placed. Such houses have been long in the business, and yet can truthfully boast that no investor has lost a single dollar through loans made upon their recommendation.

The changes requisite to render real estate mortgages as readily negotiable as other securities, are also important, as has been said, for reasons of public policy. It is a matter of great National importance to facilitate as far as possible the acquisition of land, and especially of homes, by the people. But the laws now render every step in the process unnecessarily costly and slow. If a man could buy a house and lot, or a small farm, whenever he could get together a reasonable part of the purchase money, as quickly and with as little expense as he can buy a cargo of grain, or shares in a railroad or mine, the number of those who would own houses and farms would soon be much increased. But now the buyer and seller are separated by greater obstacles than are tolerated in any other branch of modern trade. The title of the property must be searched, an operation requiring both much delay and much expense. Then the same process

must be repeated, before a lender can be found to advance part of the purchase money, and finally the drawing of the deeds and mortgages and the recording of them take time and money. With $200 in cash, a man can buy $2,000 worth of any railroad or mine without losing an hour's work, and while he has both the money in hand and the prudent purpose to provide for his family. But with $500 in cash he cannot buy a house worth $1,000 without waiting weeks, spending much of his time, and spending at least a part of a year's interest in fees and costs. There is not a grain of sense in all this, nor is reform in this matter opposed, as might be expected, mainly out of stupid attachment to old customs. The opposition to it comes chiefly from the legal gentlemen, who would soon find a large part of their occupation gone if this practical nation should ever apply its practical common sense to a reform in the system of land titles and their transfers. This country, where laws are made by the people and for the people, ought surely to be ashamed that such a reform has been long delayed. It is strange that here any abuse is tolerated which hinders the acquisition of real estate for a home or for productive uses by any individual. With simpler laws regarding real estate titles, there would be a far larger demand for real estate mortgages, because there would be a far greater number of purchases of property. The title deeds to all property might be made to bear in themselves official certificates of the title and of every mortgage thereon, so that no mortgage could be placed on any property without being at the same time officially recorded on the title by a proper officer, readily accessible to all persons within a certain taxing district. At the same time, the mortgage could be so drawn as to secure prompt enforcement of the lien, and transfer of complete title to the property, in event of the failure of the borrower to perform his obligation, or to take within a required time the necessary steps to have the property legally sold for his

benefit. And meanwhile, the mortgage could be so drawn as to be transferred just as a railroad bond is transferred from one person to another on the payment of its cost. In all this arrangement there would be not much room for legal gentlemen and officials to get fees, and for that reason they are not in haste to promote any such reforms.

Closing Considerations.

The review of American investments may fitly close with a few considerations of a general character. In no other country on earth, it is safe to say, are so many opportunities of genuine investment offered to those who seek sure and large returns. But unhappily the tendency of the age has been to multiply the means of gambling rather than the means of investing. For the past ten years, especially, the changes in the modes of doing business, in the organization and conduct of exchanges and boards, in the management of banks, in the habits of money-lenders, have all tended to magnify the mischievous influence of speculation, and to embarrass the patient and thrifty investor. Their tendency has clearly been to make the value of many investments, even the best, depend upon the success of speculation, even the wildest. Everything has been done to increase the power of the speculator over the markets, over the reserves of capital, over the current rate of interest, over the banks, over the organizations for transportation, and over the channels of public information. Nothing has been done to defend the investor. Even the courts have ceased, in a great measure, to be his citadel of defense, for the intolerable delay in legal proceedings, and the opportunities which decisions have given for successful resort to legal trickery, have made it well-nigh impossible to enforce against a great corporation, even a first mortgage bond, without first effecting some compromise with everybody else having any claim upon the property, and particularly with the most unscrupu-

lous speculators who happen to hold any of its stock. Year by year, for a long time past, the security of the investor has been whittled away, in order to give larger opportunities to the gambler in stocks. These changes are not for the public good. They do not tend to encourage economy, thrift, and saving by the people, and hence do not tend to increase the accumulation of resources by which the industries of the future may be sustained. It is not possible to say how far these changes, and the effect they have already had upon the savings of the people and upon the disposition of the people to save, have contributed to cause the serious commercial and industrial disasters of the past two years.

It is not the aim of this inquiry to enable anybody to forecast the future of speculation. It may be seriously questioned whether, with a market fully under the control of those who make prices regardless of legitimate considerations, a knowledge of the facts which ought to govern the prices of securities may not be a gift more fatal than the Greek horse to the sons of Troy. Even now, as these closing chapters are written (in July, 1885,) there is in progress a sudden upward movement that has no discoverable justification; either in the general condition of industry, which is rendered peculiarly disheartening by many strikes at a time when a large proportion of the manufacturing establishments are closed because they make no profit; or in the stagnation of business, which is so great that idle money has accumulated in the vaults of New York banks to the amount of $160,000,000; or in the prospect with regard to silver, for New York bankers have just consented to avoid accepting payment of government balances in standard silver or in silver certificates by lending the government the gold on the fractional silver which has been rejected from circulation as useless; or in the prospects of the wheat crop, which seems to be 140,000,000 bushels less than that of 1884, when stocks were no higher at this date than they are now; nor in the

condition of the transporting business, which is so depressed that freight room for millions of bushels of grain to Buffalo is offered at Chicago without takers at one cent per bushel, and even at Duluth at the same price.

The pretext for the advance in prices is that Mr. Vanderbilt is believed to have secured control of the West Shore, and to have sold out both his own interest and his associates' in the Beech Creek and South Pennsylvania undertakings. How these transactions, if they have occurred, are to benefit the trunk lines, inasmuch as there will still be the same number of roads from Chicago as there is now, to compete with lake transportation at one cent a bushel, it is not easy to see, unless one believes that the low rates have been arbitrarily caused and without any decency maintained by Mr Vanderbilt alone, in order to force the owners of the West Shore property to surrender it. If this is believed, it follows that Mr. Vanderbilt is a man with whom it is safe not to be associated in any enterprise whatever, and that his stocks must be particularly good to sell, and if this is not to be believed, it follows that the pending negotiation may not have the assent of the Baltimore & Ohio or of the Erie, and so may not terminate the war of rates. Nor does it appear, if all the reports are correct, how the far-off railroads in the West or South can be affected in any way by the success of pending negotiations. In plain terms, the advance in prices is another artificial movement, with which the public has nothing to do, and which has no basis in any change in the condition or prospects of railroad stocks generally. Yet it has gone far enough already to wreck the hopes of many a gambler in stocks, who had sold property that did not belong to him, relying upon the control of prices by those general conditions which would control a free and honest market.

But if the course of such a market, from week to week, or from month to month, cannot be anticipated with the aid of

human reason, it still is possible to infer that the prevailing tendency of the market for speculative securities will be toward still lower prices, until important changes have taken place. The settlement of controversies between the railroads, on some plan which has not, like the old pooling system, been tried and found wanting, is one thing needful. If the railroads can agree upon a permanent council of arbitration, and then, by formal contracts which could be enforced in court, can bind themselves to abide by its decisions, that might afford relief for a time. But it would take the market out of the control of speculating railroad managers, and when they consent to such a change their stockholders will have a cause for devout thankfulness which is now lacking.

The settlement of the silver question is an essential preliminary to any lasting improvement, either in speculative securities or in the value of investments. There are many who indulge the hope that, although silver payments would ultimately involve great disaster, they would have at first the effect of inflation. The value of currency would depreciate, they reason, and therefore, the nominal prices of things, which ought to be higher measured in silver dollars than in gold dollars, would advance. Thus, they hope, a magnificent "boom" of speculative enthusiasm, as brilliant as that of 1879, if even less enduring, would bring unspeakable comfort to those who have on hand property which cost them more than they now can get for it.

This reasoning has some force, and there is a possibility that it might prove correct. The result would depend on the temper of public opinion with regard to the change. If at the outset it arouses no apprehension, and leads to no vigorous measures by the banks to save themselves, or to no withdrawal of money from the banks by depositors in order to make sure of the gold that belongs to them, then indeed the first effect would be to add silver gradually to the currency in use, without an equal loss of gold withdrawn from

use. If no difference appears in the market price of gold for a time, the combined influence of actual inflation and of speculative hopefulness would doubtless cause an advance in prices, more or less short-lived, but possibly great while it lasts. But the chief difficulty is that the silver business has been discussed for years, and intelligent men well know what to expect if silver payments once begin. It is exceedingly doubtful whether in this state of things any season of enthusiastic hopefulness could be produced. There seems to be more probability, to say the least, that substantial men, who have money in the banks, either because they have not been willing to buy things with gold when they may ultimately get only silver for them, or because they require gold in their foreign or other operations, will begin to protect themselves by drawing it out, even before the actual payments in silver begin. In that case the banks will be forced to decide quickly whether they will protect their depositors and themselves or not. If they promptly open two accounts, in gold and silver separately, the expected "boom" will never come. But if, on the other hand, they temporize, and try to help on the inflation, there is at least a possibility that the panic caused by withdrawal of gold from their vaults may be as severe as any the country has seen.

The interest of all genuine investors in this matter is clear. They have nothing to gain by taking the gamblers' chances of a temporary advance in price. It is their part to resist with all their power the debasement of the currency, and the demonetization of gold which would follow. For the consequences of such a change would be so disastrous, both for producers and for investors, that no conceivable benefits arising from a temporary advance, could one be secured, would outweigh them.

Were the silver question out of the way, and were the railroad problem settled, there would still be some uncertainty regarding the action of Congress next winter on other ques-

tions. But there is no possibility that the silver question can be got out of the way before the meeting of Congress. The prospects of any lasting improvement before next winter, therefore, do not seem bright. Nor will it be forgotten, by those who have followed the review of the past thirteen years, that the decline in prices has not yet continued long enough or been great enough to correspond with the decline from 1872 to 1878, or with the advance from 1878 to 1881. This is hardly a sufficient reason for believing that a further decline must take place, and that one or two years more of depression must be endured, before any solid improvement can begin. But it is at least a reason for regarding with caution the confident assurances which are heard every day, that "the tide has turned at last," and that "the country has started on another grand movement, upward and onward." Everybody will rejoice if these predictions prove true. But it would be safer for investors to buy only the soundest securities, and to prefer investments as far as possible removed from speculation, until the signs of approaching improvement are more clear. In 1877, it may be remembered, both speculation and manufactures started off with boundless hope, only to be plunged into deeper gulfs of despair and disaster a year later. It would have been better for many, and probably for all, if no upward start had been made until things were ready for it.

But so it is often in this country, where a consciousness of boundless resources, and a past history of unexampled growth and progress, seem to prepare the mind for seasons of the most riotous extravagance of hopefulness. It is easy to infer from experience that, as what were thought the wildest impossibilities have often come to pass, so nothing can be too wild or impossible to be realized in America. The one danger, to which legitimate business and genuine investors are always exposed in this country, is the destructive predominance of a speculative spirit which everything in the

country combines to stimulate to the utmost. Yet he who can prudently avoid the unreasoning hopes of speculation, and its destructive influence upon business, can find in this country more profitable and safer investments than in any other land under the sun.

APPENDIX.

The following tables give quotations for the year 1884 of all stocks of which quotations can also be obtained for 1878, with about 20 which were first quoted between 1878 and 1881. These are of three classes. The more active stocks in speculation, numbering 60, are quoted in Table No. 1. Of these, 40 were quoted in 1878, and 20 (of which separate mention is made as "new stocks") have become known since that day. Quotations of the third class, embracing 40 investment stocks, are given in Table No. 2.

The quotations in Table No. 1 show, except where it is otherwise specified, the latest recorded sales on the dates named, or, if no sales were made on that date, the nearest in point of time, with preference for the latest preceding sales where two of equal distance occurred. In some cases where no sales were made for a considerable time, while the tone of the market had changed, the price bid is given instead of the latest previous sale, or, in the absence of any bid, the price at which stock was offered. Where the price bid or offered is given, in place of the latest previous sale, as representing more nearly the actual state of the market, the letters "B" or "O" designate such quotations. But wherever recent sales were recorded, preference has been given to them.

On certain dates, when the culmination of an upward or downward movement was reached, the highest or lowest price of the day is given in place of the closing sale. These quotations are distinguished by the letters "H" or "L" following the date. Thus the downward movement, which

began with the year, culminated January 21st in the lowest range of prices for some months, and accordingly, the quotations of that day are given in place of those of Saturday, the 26th, and the lowest prices of that day in place of the closing prices. The succeeding advance culminated, February 21st, in the highest range of prices for the month, and, indeed, for the year, and the highest quotations for that day are given. The next general movement culminated in very low prices on the 24th of May, after which there was a quick reaction and then a further decline, so that the lowest prices for the year were reached on the 27th of June. In like manner, during the latter half of the year the highest or lowest prices are quoted of those days on which the character of the market distinctly turned, while, for intermediate periods, the closing prices of each week are given.

In all cases the quotations are on the basis of $100 per share. Thus, to ascertain the corresponding Philadelphia price, or the price per share of $50 stocks, such as Delaware, Lackawanna & Western, the quotation given must be divided by two, and the quotation of Nashville, Chattanooga & St. Louis, by four. Included with the stocks are the New York, Lake Erie & Western second consols, both because these securities are in the nature of a stock rather than a mortgage, and because the speculation, as respects that important property, has been rather in these so-called bonds than in either the common or the preferred stock. The West Shore bonds would have been included for the same reason, had there been quotations of those securities in 1878. But as the object has been to compare the prices of different classes of securities, not for the last year only, but for previous years, selection has been made of the securities available for that purpose. As those here quoted embrace more than 90 per cent of the aggregate sales during the year 1884 or 1883, it will be perceived that the general movement of the market is accurately represented.

The quotations in Table No. 2 embrace 40 investment stocks, not active in speculation, and of established value, which have, nevertheless, been quoted, either at New York or at Boston, Philadelphia or Baltimore, often enough to show the movement in prices with substantial correctness. In a number of cases, it will be seen, no record of sales has been found for several successive weeks, and in such cases the price bid has been inserted. Where no bids are recorded, the price at the last preceding sale, or in case of an important change in the market, at a nearer subsequent sale, has been used in computations. Though this list might be greatly extended, the quotations of other stocks than those included are either so rarely given that the change in movement, from time to time, would not be faithfully represented if they were included, or they were not quoted in the market in the earlier years to which this examination refers.

ACTIVE STOCKS—TABLE No. 1.

1884.	Bur., C. Rapids & Northern.	Canada Southern.	Central of N. J.	Central Pacific.	Ches. & Ohio 1st Preferred.	Chic., Bur. & Q.	Chicago, Mil. & St. Paul.	Chicago, Mil. & St. Paul Pfd.	Chicago & Nor.	Chicago & Nor. Preferred.	Chic., R. I. & P.	Chicago, St. Paul, Min. & Om.	Chicago, St. Paul, Min. & O. Pfd.	Cleveland, Col., Cin. & Ind.	Del. & Hudson.
Jan. 5	80	53	86½	66¼	25⅜	122½	93⅝	115¾	118¼	146	116⅝	34⅜	95	67½	105¾
" 12	75	52⅝	89¼	66½	24¾	121	92¼	115½	117⅜	144 B	117⅛	32	93	65	106¼
" 19	70	50¼	87½	64⅞	23	119½	86¼	114	114½	142	115½	29⅛	90¼	60	105⅝
" 21 L.	70	48¾	86	63½	21	118½	84⅛	113¾	112¾	140½	115⅜	28½	88¼	60	105¼
Feb. 2	75	55⅛	87	64⅝	26½	124	91⅞	117	120	145½	119	33⅛	94¾	63	109
" 9	75	56⅝	88⅛	63¼	27¼	126¾	93⅜	118	122⅛	148	122½	33¼	95¾	65¾	113⅜
" 16	75	57¼	87¾	63¼	26	127⅜	93⅝	118½	122¾	148¾	124⅞	32⅞	96	64	113⅛
" 21 H.	75	56½	90	62⅞	25¼	127⅜	93⅜	117½	122¼	147½	124½	32¾	95¼	65	114
March 1	73	53½	88	61	24	122⅜	90½	114¾	117⅜	143	120	30½	92⅛	64	110
" 8	73	53¾	88½	60⅛	24	124	91¼	117	117⅞	143¼	121	30	92⅜	65½	109½
" 15	73	54⅜	89	59⅛	24	123¾	91¾	117½	117⅝	141½	122¼	30¾	93⅛	68½	108¾
" 22	73	53⅝	88¾	58¾	26¾	125	92⅜	117¾	118¼	143	124	30½	93⅛	67½	108½
" 29	73	52⅝	87	58⅛	26	124⅝	87¼	114¼	117¼	141¼	121½	31¼	93½	65	107⅛
April 5	66	51	87⅛	57½	25¼	125	86	113⅛	115⅛	144¼	119½	30	90	61¼	107
" 12	66	50¼	87⅛	57½	23¾	124⅝	86	113½	115	143	120¼	31	91½	63⅝	107
" 19	66	49⅛	84⅜	56⅝	22½	121	85¼	113⅞	114⅞	143⅛	120	31	92	60	106
" 26	62 B	48½	80	56	21¼	120⅞	82⅝	113	112⅜	140½	118¼	31½	93¾	54	105
May 3	60	44⅜	79½	48⅝	21	122¾	82⅞	112⅞	111¾	140½	119¼	31	93¼	52	105¼
" 10	60	41¾	78⅞	44⅞	20½	121	79½	112	108⅝	135	117½	30¼	92¾	41⅞	103⅜
" 17	52 B	39	74½	46	16½	118	72⅜	107	104¼	133	115½	27¾	89¾	40	103
" 24 L.	53 B	36½	49	40¼	14	108	66⅜	105	95	123	108½	25¼	85	37½	90¾

May 31	53 B	38¾	56¾	44	17	113⅜	74¼	110⅛	100½	130	111¼	27½	90	41	94¾
June 7	60	37¼	59	43	16	115	75⅝	109½	100⅛	130½	113½	28½	89	39½	97½
" 14	60	37¼	58¾	42¼	13	113¾	70⅛	104	95½	125¾	111¼	27	88½	39	94¾
" 21	60	32½	55	36⅞	9½	108½	64	101	87½	120	103¾	26	86½	35	91¼
" 27 L	55	24¾	54½	31½	11¼	107	58¼	95⅞	82½	117½	103	22⅛	80¾	28	90¼
July 7	60	29¼	61	36¼	12½	112½	67⅛	106	90⅞	127	107½	25	85¾	36	94½
" 11	....	29½	57	37⅜	12	114¼	68⅛	104	90⅞	125	107¼	26	85½	36	91½
" 19	....	31¼	58	37¼	13¾	115½	73½	106	92⅜	128½	110	27	87½	35½	95¾
" 26	....	36½	67½	39⅝	15⅛	119¼	80⅞	109	99¾	131	113⅝	31⅛	93½	38½	101
August 1 H	....	38¼	65⅞	43	15⅜	121½	87¼	110½	105	134¾	115	34½	96⅞	42	100½
" 9	....	36½	62½	41	15	119	84⅝	109¾	101½	133	114½	33	93¾	41½	99¼
" 16	65 B	37⅞	60½	42⅛	15¼	122¼	86¾	112⅜	103	135½	115¾	34	95½	40	100¾
" 22 H	63	39⅜	63½	44¼	16¾	125¼	88¾	113¾	106⅛	137	117¼	37¾	99	46	101
" 29 L	63	34¾	60¼	39½	18½	120	81	109¼	98⅝	133	114	31⅞	94⅛	41	97
Sept. 6	65	36	55¾	41¾	14¾	122¾	84⅝	110½	99¼	133¼	116½	34⅝	95	42½	96¾
" 13	61	34	56¼	40	14⅞	122⅝	83⅜	108	97½	132½	114¾	33	93¾	40½	92
" 20	61	31¾	49⅜	39¾	15	122⅛	81	107	91⅝	126	112½	31	92	36	86
" 27	60	30	50	39⅜	14½	121½	80¼	108	90⅛	126	115	31⅜	91⅞	38	87¾
Oct. 4	60	34½	49⅞	41	13	123¼	79⅜	105¾	92⅜	127½	115	33	94	39	89½
" 11	60	32¼	44⅜	40	12½	120	78¾	105½	89⅛	125	114½	30	90½	39	83½
" 18	60	29¾	42	38	10¼	119	74⅝	103	85⅝	123½	112¾	28	88	36	83¾
" 25	60	28⅞	41⅜	38¾	11	118	73⅝	103	85	122¾	111½	28¾	89	35	84⅞
Nov. 1	60	30½	40⅞	38	12	118	76⅛	105	86⅜	125	110¼	29½	88	34	84¾
" 7 L	60	28¾	41¼	35¼	10	116¾	73⅝	104¼	83½	124	111¾	27⅞	86¼	34	83¾
" 15	60	30	40⅜	33	10	119⅞	74½	105¼	86	123	111½	29	89	35	86
" 22	60	32	42⅛	34⅛	10	121¼	76½	105⅛	89½	124½	109	29¼	90¼	32	89¾
" 29	60	32	43⅞	35	11	121	79⅝	107	91¾	126¼	111	29½	90¼	36⅛	90½
Dec. 6	55 B	31½	46	34⅝	11¼	121⅛	79½	107	87¼	124	111⅜	28¾	90⅛	37	86
" 13	50¼	31	47	34	11	118½	74⅛	106	85¼	122	107½	26	86½	33	83
" 20	50¼	31	43½	33¾	10½	118½	73⅞	105	86⅛	123½	108⅛	26	86⅞	33	78⅛
" 27 L	50¼	29	37½	33¼	10	114	69⅜	103	82¾	121½	105¾	24	84½	32½	68
" 31	50¼	29	39⅛	34	9⅞	115⅛	71⅛	103¼	84⅛	119½	105	23⅞	82¼	31⅜	68

ACTIVE STOCKS—TABLE No. 1—CONTINUED.

1884.	Del., Lack. & W.	Denver & Rio G.	Houston & Tex. Central.	Illinois Central.	Ind., Bloom. & Western.	Lake Erie & W.	Lake Shore.	Long Island.	Louisville & Nash.	Memphis & Char.	Michigan Central	Missouri, Kansas & Texas.	Missouri Pacific.	Mobile & Ohio.	Nashville, Chat. & St. Louis.
Jan. 5	116⅜	25¼	50	133½	19½	19¼	97¼	69	47	35	90	23	90¾	10⅛	56
" 12	116½	24⅛	49½	134	18¼	18½	96⅛	67	46½	40	92¼	22	90½	9½	54
" 19	115⅜	20⅝	45	136	15¾	16	94	65	43⅜	32	89	18½	86⅝	8½	46
" 21 L.	114¾	17¾	45	134⅞	15	15½	93½	65½	42¾	32	86¼	16½	85⅛	8½	46
Feb. 2	123⅛	21½	47	138¾	18	19	100¾	69	49	37½	92½	21¾	92¼	10	53
" 9	127⅞	21	46	138⅜	18	18½	103	71¾	48⅜	38	94	22	93⅞	11	52½
" 16	127⅞	21	50	134	18	18	103⅞	71½	49	37	93⅞	21⅝	94½	10	54
" 21 H.	132½	20¾	45	133¼	17	17⅛	104½	71½	49¼	35	93	21⅝	94¼	9⅝	53
March 1	129⅞	18¾	45	130½	16½	16⅝	103	71	48⅜	32½	93	20¾	91¼	9½	50 B
" 8	128	18¼	45	131	16½	17	102½	73¾	48½	33	91	20⅛	90½	11	52 B
" 15	128¾	18½	45	131¼	16¼	17½	102⅝	78¼	48½	34	91½	21¼	92⅛	11	58
" 22	126½	18⅜	45	131⅛	19	19½	101⅝	76	48	35	91½	21	89	12½	53 B
" 29	124¼	19	45	130	17	17½	101⅛	77½	47⅝	35	91	20⅝	87¼	12½	54
April 5	121	18⅝	45	128¾	17	16¾	98	77	46⅞	33½	89	20	85½	12⅛	54
" 12	119⅞	18	41 B	130¼	17	16½	98	77	46¾	33	89¼	20	85¼	13	54
" 19	118½	15¼	40	129	16¼	15⅜	97½	74	46⅝	34	87½	17⅛	80⅞	12⅜	53
" 26	117½	13¾	40	128	16	15½	96	73¾	46¾	35½	85	15¾	81⅞	11	52
May 3	118½	12⅞	40	128	16	15	95¾	72½	46	37	82	15¾	81	11½	50
" 10	112¾	11⅛	40	123¼	14½	12	94¼	70¼	45½	34	77¾	15½	79⅝	10	48
" 17	111½	12½	38 O	123½	13	10	89	66	34	27	71	16	72	9⅛	41¼
" 24 L.	93⅜	10	38 O	115	10	9	82¼	62	30¾	25	68	14⅛	64⅛	8	38½

May 31.	103	11⅜	36 0	120	12½	11	85½	67½	37	29	66⅞	15⅝	81½	9	42½
June 7.	102	10½	35 0	118½	11½	10	83¾	68½	29½	27	67½	15¾	86⅝	9½	39¾
" 14.	102⅛	10⅛	34 0	115⅝	10½	9½	85¼	70	30⅛	27	69	14½	90	9 0	37
" 21.	100⅞	9⅛	30 0	113⅞	9	7¼	74¾	67½	26⅜	25	62⅝	12⅞	95	6¼	37
" 27 L.	105⅞	7	20	110½	9	6⅞	67⅜	63¼	22½	23	51¾	9½	91⅞	6¼	33
July 7.	108⅜	8¼	25	117¼	12	9½	73¾	66½	26½	24	57	13½	97¼	9	37¼
" 11.	107⅜	9	24	118	12½	8	75⅛	68	28½	24½	60	14½	96¼	9	38
" 19.	110½	10	24	124	13	10	74¾	68	28¾	24	59	15	98¾	9½	42
" 26.	116⅝	11¼	24½	127	13⅞	13½	82¼	66	32	30	72	18⅜	99½	10½	43
Aug. 1 H.	115½	12¼	32	130	15½	13¾	88⅜	67½	36⅛	30	72¾	19½	95⅞	10½	45
" 9.	111⅛	12½	34	128¾	15¼	13½	80⅞	63	34⅝	29½	67	19	92⅛	10	42½
" 16.	112¼	13	35	125⅞	16	14¾	84⅛	66	34⅝	29	70	21	92⅜	10	42
" 22 H.	114⅞	13¾	37½	127⅞	17	17	85¾	70	36	30	71½	22⅝	93⅜	10½	41
" 29 L.	107⅛	12	36¾	124	15	12¾	79⅛	67⅞	30⅞	28	66⅞	18	90⅛	10½	40
Sept. 6.	108⅞	11⅞	35	125½	16	14⅛	80½	69	30⅜	27	69	19	92⅛	9 B	39
" 13.	107⅜	11¾	35	124	15	13½	79⅞	67	29⅞	26	66	18¾	90½	9 B	38
" 20.	108¼	10	30	124	15½	12	78⅜	64½	29⅜	29	65	17⅞	90¼	9 B	36
" 27.	109	10¼	32	123½	15½	12⅛	76⅛	64 B	27½	29	61	17⅝	92¼	9 B	33
Oct. 4.	107⅝	9⅝	35	123½	16¾	13	76⅞	65	28⅛	29	62½	18⅝	95	9 B	37½
" 11.	104¾	10	34½	124	16	12¾	74⅞	65	26½	29	61⅞	17⅝	95⅛	9 B	38
" 18.	102¼	9¾	34½	120¼	14⅝	12	65¾	62¼	26⅜	28½	57	16⅝	92¾	9	35
" 25.	103⅛	9¼	34½	119	14	11	66	62	26¾	27	55	16⅝	92⅜	9	35½
Nov. 1.	104⅛	9¼	32 B	114	14½	11	66⅛	62	25	27	54	16½	92⅜	9 B	37
" 7 L.	100¼	8¾	30	113½	13	11	64⅛	62½	24	26	59	15	89¾	6½	35
" 15.	104⅜	9½	33	115¼	14½	12	66⅞	65	24⅜	25½	60	15⅜	93	6½	38
" 22.	107⅛	9½	33	115½	15	12	67⅞	63	24½	26¼	57	15¾	93½	6½	37
" 29.	110¾	9⅜	33½	121¼	16	11¾	67¼	63¼	26¾	28	60	17	95⅛	6½	39
Dec. 6.	106¼	9⅜	38¼	120	15	11½	68	64½	27	28	56½	17⅜	92½	6	38
" 13.	99¼	8¼	37	118	13½	10½	64⅜	63	25⅝	28⅞	56¼	16¾	92¼	7 B	36
" 20.	94¾	8½	37	119	14	10¼	63⅝	64½	26	27½	57½	16½	90½	7¼	36
" 27 L.	89½	8¾	30 B	116½	11¾	9	59½	64	24½	26	55	14¾	89¼	7¼	36
" 31.	87½	8½	32½	117	12	8¾	61⅝	62½	25¼	29	55	15½	90⅝	7¼	36

ACTIVE STOCKS—TABLE No. 1—Continued.

1884.	N. Y. Central & Hud. River.	N. Y., L. Erie & Western.	N. Y., L. Erie & Wst'n Prefd.	N. Y., L. Erie & West. Seconds.	N. Y., Ontario & Western.	Norfolk & West. Preferred.	Northern Pacific.	Northern Pacific Preferred.	Ohio Central.	Ohio & Mpi.	Ohio & Mpi. Prfd.	Oregon & Trans.	Oregon R'way & Navigation.	Pacific Mail.	Phil. & Reading.	Pullman P. Car.
Jan. 5.......	114⅜	28⅛	70	92⅞	16	41	26⅞	56½	3	24¾	90	34	103	43⅝	58½	115½
" 12.......	113¼	27	70	90⅛	13⅜	40	26⅛	55	3	24	90	31⅝	98½	43	57	112½
" 19.......	111¼	24⅞	69	88⅝	10¾	38½	23⅜	49½	2½	23	90	23¾	93½	41¼	54⅜	110
" 21 I.....	110⅞	24½	67⅞	88	10¼	38	22⅜	47¼	2½	23	90	22	90	40¾	52¾	108¾
Feb. 2.......	115⅛	27⅜	69½	92¾	11½	39¾	23⅛	48⅝	2⅞	22¼	....	24¾	95	46½	55¾	113¼
" 9.......	118⅛	27¼	69	93	11⅜	35¾	21⅞	47¼	3	21⅞	....	22½	93¼	47⅜	57⅞	114
" 16.......	117¾	27¼	69⅝	94½	11¼	42	21⅝	47½	2⅞	23½	....	21	92¼	47⅝	57⅛	107¾
" 21 H....	117¾	26⅞	69⅝	94¾	11	41⅜	21⅞	48⅛	3	21½	90	20⅝	99½	47⅞	59⅞	110
March 1......	116¼	25⅛	71	93½	10⅜	41	21⅛	46⅜	2⅝	22¼	....	19¾	90	50¼	58⅜	108½
" 8......	117	24⅞	68¾	92½	10⅜	40	21¼	46½	3	22½	....	19	85	50⅝	58⅛	109
" 15......	116¼	23⅝	68	91½	10¾	40	21⅝	46¾	2¾	23¼	....	20	85	53⅝	58⅜	109
" 22......	114¾	22⅜	66	91⅛	10	40½	22	47¾	2¾	23½	....	20¾	88	54½	56½	114½
" 29......	114⅜	21⅛	58½	89	10	40½	22	48⅜	2½	21¾	....	21¼	86	52	53¼	114
April 5......	113¾	21½	57	89⅛	9⅞	40	22¼	47¾	2¾	21⅜	....	20⅛	85	52½	53¾	112½
" 12......	114⅛	21½	57½	89½	9⅞	40	22⅛	47¾	2⅝	21¼	....	20	77½	52	52¾	112½
" 19......	114¼	19⅜	50	85⅛	9½	39½	22⅝	48½	2⅝	18¾	....	18⅜	76	47½	48⅝	111½
" 26......	113¾	18⅜	52	83¾	8¼	38	21¾	47⅝	2⅜	21	90	17¾	72½	46⅛	43¼	110⅛
May 3.......	113⅜	18¾	48¼	83½	10	38	23½	52½	2⅝	20⅞	....	18⅞	79¾	45¼	42⅝	110½
" 10.......	112	14⅜	34¼	68¼	9⅞	36	23	52¼	2⅜	21	....	17⅛	77	44	35⅞	108¼
" 17.......	113	16⅞	34	68	10¼	30½	22⅞	50	2⅛	23	45	15	71	40⅛	32½	104½
" 24 I......	107	14	35½	54½	9¾	31	19	41	2	19	45	12½	73½	35½	24¾	90

May 31	105⅝	16	34¾	59½	10	34¾	21	48½	2¼	21⅞	45	14⅛	74	42	26¼	102½
June 7	103½	14¾	31	56⅝	9¾	30	21½	49⅜	2	21	45	14¾	74	42	24⅜	101
" 14	104⅜	14¾	31¾	56¾	9⅛	30	20	45¾	2	20⅛	45	12⅛	69	41¼	25⅛	100½
" 21	98⅛	13⅝	30	53¼	8½	29	18¾	42¾	1¾	17	45⅛	10¼	71	37½	23	95½
" 27 L.	94¼	11⅛	20	45½	7	24	14	37¼	1¾	14⅝	45⅛	7⅛	62½	38¼	22½	95
July 7	100½	13⅛	28	50¼	9¼	28	17⅞	43¾	1⅝	18¾	60	9½	71	41⅜	26⅜	101
" 11	102⅛	13⅝	27	51⅝	10¾	25	18	44⅝	1⅝	19¼	64	9¼	70	44¼	24¼	101
" 19	102⅞	13⅝	30	55⅛	10⅞	25	18½	45¼	1¾	21	64	9¼	73	46⅜	25½	104½
" 26	109¾	15⅜	33¼	60	10½	28½	21	50	2	20½	64	11¼	77½	46	29¼	109⅜
Aug. 1 H.	112	17¼	34¾	64¼	12½	28	23¼	54⅞	2⅜	21	64	15¾	85	48½	29¼	111
" 9	105	15½	34¾	59¼	11⅞	27	22¼	51½	2	22	64	15½	81	49¾	28	109
" 16	106⅞	18	38	64¼	13	30	22½	53⅞	2½	21	64	17	85	51⅛	27	110
" 22 H.	107½	18¼	36	65½	13½	30	23¾	53⅝	3¼	22¾	64	18	86½	52⅜	29⅛	116½
" 29 L.	102¾	15⅜	34½	60	11¾	30	21	48½	3	21	40	15⅜	83¼	48¼	26½	111¾
Sept. 6	102	16	34¼	62	12½	28	22¼	48¾	4	22½	40	15⅝	83	49½	26¼	115
" 13	101½	14¼	30½	57	11¾	26	21½	48½	3¾	21½	40	13⅞	70¼	49¼	26⅛	114½
" 20	99⅜	13½	32	54¼	10⅛	26	20⅞	48⅛	2¾	19¼	40	13¼	67	51⅜	24¾	112½
" 27	93¾	14	25½	55⅛	11½	25	18¾	44	2⅝	18⅜	40 O	13	72½	50⅝	25¾	113½
Oct. 4	95¾	14¾	27¼	56⅞	11½	23	20	45	2⅜	19⅛	40 B	14⅛	71	52¾	25⅛	114¾
" 11	94⅜	13⅝	26	54⅜	10¾	23	18⅝	42¼	2	18	40 B	12½	69½	55	23⅜	114
" 18	87⅝	13⅜	30	52	11	23	18	41⅞	2	17	40 B	12	68	52⅝	22¼	112
" 25	86⅝	13	26	53½	11	22	18½	42⅝	2	15¼	40 B	12¼	71	51⅞	22⅝	111¼
Nov. 1	85½	13	25	51⅝	11½	21	18⅝	43¼	2⅝	17	40 B	12¾	68	52¼	21¼	110⅜
" 7 L.	83½	12½	25¾	48⅛	11	21	17⅞	41¼	2⅛	16¾	40 B	12⅛	69	48¾	21¾	109¼
" 15	87¼	13	27½	50⅜	11½	21	18⅝	42⅞	2⅜	17½	40 B	13	75	50¾	22¼	110¼
" 22	86⅞	13¼	26	50⅞	11⅛	20	18	42⅛	2	16⅝	40 B	13	70	52½	22¼	109½
" 29	89⅜	14⅝	32	57⅛	12	19	18½	42⅜	1¾	18¼	45	14⅜	74	53¾	23½	111
Dec. 6	91	15	29	57	13⅝	19½	17¾	41⅛	1¾	18½	60	13⅛	74	54⅛	22¾	111
" 13	88¼	14⅜	30	56⅝	12	21¼	16½	39⅞	1¾	21	60	13	71	53¾	22	108¼
" 20	86¾	14⅜	28	57⅜	12⅛	21	17½	40⅝	1⅜	18½	60	14¼	72	56¾	22	108
" 27 L.	83¾	13⅝	28	55½	11¾	21	16⅝	39⅝	1¼	17¾	60	13¼	70¼	54½	17	106
" 31	86⅛	14⅛	28	57	12	21	16¼	39¾	1½	17¾	60	13¾	69½	55¼	18	106

ACTIVE STOCKS—TABLE No. 1—CONTINUED.

1884.	Richmond & All.	Richmond & Dan.	Richm'd & W. P.	Rochester & Pitts.	St. Louis, Alton & Terre Haute.	St. Louis & San Francisco.	St. Louis & San Fran. Prfd.	St. Louis & San Fran. 1st Prfd.	St. Paul, Minn. & Man.	Texas & Pacific.	Union Pacific.	Wabash, St. L. & Pacific.	Wabash, St. L. & Pac. Pfrd.	Western Union.	Average.
Jan. 5	4	54½	30½	15½	41	22 B	41	90	98	19⅜	74¾	19½	31½	76	62.40
" 12	5	54	29	15	40	20½	40¼	90	96¾	19	77¼	18¼	29⅝	75⅝	61.60
" 19	4	53½	27½	14¼	24 B	20	39	89 B	90¼	15¾	73⅞	14⅞	26½	72½	59.07
" 21 L	4	52½	26¾	13⅝	40	20	39	87	85	15½	72⅝	12½	24¼	71½	57.95
Feb. 2	5	57¼	28¾	15¾	48 B	20 B	39	84½	93⅞	21	81⅛	18	29⅝	77	61.93
" 9	5	60	29	15¾	45 B	20 B	39½	85	97¼	21⅛	82¼	17⅝	28⅜	76⅜	62.49
" 16	4	61	31¾	15⅜	44 B	22½	40½	88	96	21⅜	83⅞	17½	28½	77½	62.68
" 21 H	4	59	30	15½	44 B	22½	40½	87½	96	21½	83½	17¾	29¼	77	62.64
March 1	4	58½	28¼	14¾	44 B	20	43	88½	93¼	20⅛	79	16	27½	75⅛	60.99
" 8	4	58½	28½	14	40 B	22	43	88	93¾	19⅜	80⅝	15½	26¼	74¾	60.93
" 15	3¾	58½	28½	13¾	50	22¼	46	93	95	20¼	77⅝	15⅞	26¾	75¼	61.61
" 22	3¾	57	28¾	14⅛	47 B	25¾	47¾	93½	96⅜	20¾	75½	15⅞	26¼	72½	61.63
" 29	3¾	55 B	29¼	14⅛	44 B	25¾	47½	94	95¾	20	74⅝	15¼	24⅝	71⅝	60.98
April 5	3¾	55 B	28½	13¾	41 B	26	46	94	94¾	19⅜	70¼	14⅜	23½	69⅛	59.68
" 12	3½	53	28½	12¾	41 B	26	46	93½	96¼	18½	70⅛	11	20¾	68¾	59.34
" 19	3½	54	27	9⅞	41	26	46½	95½	93½	17	66⅝	10⅛	16½	66⅞	57.99
" 26	3	52½	26½	9¾	35	23	45	90½	91⅞	15½	67¾	9	15⅝	66¼	58.78
May 3	3	52½	26	9⅛	35	23½	44	88	93	15⅜	59⅛	9	16⅜	60⅜	56.33
" 10	3¾	50⅛	24¾	6	33¼	25	42	86	91	14⅞	51¼	7½	14⅝	59⅝	53.86
" 17	2⅛	45	20	7⅝	22	19	40	80	89½	13⅝	45¼	8	15½	57⅝	50.27
" 24 L	2⅛	40	19	6¾	20¼	18	36½	75	85	11¾	36⅜	6	11½	52¾	45.67

May 31	2¼	40	20	7¾	25	18	37	80	88	13½	44	6⅝	13	59⅞	48.89
June 7	2½	40	21	6	20½	19	38	81	89	12¾	45¾	6½	13¼	60¾	48.76
" 14	2⅜	39	19	4⅝	20½	17	35½	80	86½	10	40	6	12½	62⅛	47.62
" 21	2⅜	37	16	3¾	20	13	36	79	84	7¾	35	6	12⅛	55	44.95
" 27 L.	2¼	37	12	3½	18	13	25	73⅞	78½	5½	29⅝	4	9½	51½	41.54
July 7	3½	34½	15¼	4	22¼	13¼	29	79	87½	8⅞	32⅝	5⅞	12⅜	55⅞	46.02
" 11	3	34	15½	3¾	24	14	25½	80	86	8¾	33⅞	5⅞	13½	55¾	46.16
" 19	3	33	14¾	3¼	24	14½	28	84	89	9½	35	6¾	14	55½	47.40
" 26	3	38	19	2⅜	26½	21	33½	84	95	11¾	43⅛	6¾	15¾	60⅜	50.76
Aug. 1 H.	3	39	19	3½	30½	17	36	85	97	12	48¼	6⅞	16¼	62¾	52.56
" 9	3⅞	39	18	3¼	29	17½	36	85	96⅞	14	44⅛	6	15½	64⅝	51.16
" 16	3½	39½	18	4	28¼	18	35	84⅞	95½	14½	48½	6⅛	15⅜	66⅞	52.24
" 22 H.	4	45	20¾	5⅛	31½	29½	48½	90	98¼	15¾	57¼	7	16½	69¾	54.45
" 29 L.	5	45	20½	4½	29	20	38½	89⅞	94½	11¾	45⅜	6½	14½	62	50.58
Sept. 6	3	45	20¾	5	29	24¾	43½	87	97	13	49⅝	6	14	65⅞	51.34
" 13	3	42 B	18	4¼	29	23¼	42⅝	83	96⅛	12⅞	49½	6½	14	66	50.10
" 20	2½	38 B	18	4½	29	21½	42½	86	90	11	50⅝	5⅝	12½	63½	48.52
" 27	3	35	17½	4	24	21	40¼	87½	86¾	11⅜	51	4¾	12	64	48.03
Oct. 4	2¾	37	17	4	21¾	21¾	42¼	88	92	11⅝	54⅝	4½	12	64⅞	48.86
" 11	2¾	37	16½	4½	21½	23½	42½	87½	82	11⅜	55¼	5⅛	12	64	47.78
" 18	2¾	37	16	4	22 B	20	38½	89	79½	10	51¾	4⅝	10¾	61¼	46.18
" 25	2¾	32 B	15	3¾	20 B	21	40	86	77¾	10⅝	53½	5	10¾	59¾	45.83
Nov. 1	3	32 B	15	3¾	21	21	41	88½	80	9½	54½	5¼	10½	60⅝	45.85
" 7 L.	2½	32 B	15	3½	21	21	39½	84½	78½	9	47	5	10½	57⅝	44.86
" 15	2⅛	34	15	3½	20	21	41	88	82	11	51¾	5	11¼	60½	46.08
" 22	2½	34	15	2¾	20	19	40	84	83	11¾	50	4⅞	12½	60	46.37
" 29	2¼	45	21¼	2¾	20¼	22¼	40½	83½	86	13⅜	50⅞	5	13½	61	47.73
Dec. 6	2⅛	43	19	3½	22½	22½	42¾	87	84½	13¼	50¼	5½	13⅛	62¾	47.61
" 13	2⅛	43	19	3⅛	20 B	20	39½	84	82⅝	13⅜	48½	5½	13⅛	60⅞	46.27
" 20	2⅛	45	20	3	20 B	20½	40¼	83½	82½	12⅞	48½	4¾	12½	56¾	46.06
" 27 L.	2⅛	45	18	2⅝	20½	20½	38½	83	81	12	45¼	4¾	13	54⅛	44.29
" 31	2⅛	45	19	3	22	20½	38½	83	79	12⅝	46	5	13	54	44.56

INACTIVE STOCKS—TABLE No. 2.

1884	Albany & Susq.	Chicago & Alton.	Chicago & Alton Preferred.	Cleveland & Pitts.	Harlem.	Morris & Essex.	N. Y. Elevated.	New York & New Haven.	Pittsburg, Fort Wayne & Chic.	Rensselaer & Saratoga.	Adams Express.	Amer. Express.	U. S. Express.
Jan. 5	132	134	150	139	193	124	125	178	132½	144½	130	92¼	59½
" 12	....	135	....	139	193	122	....	176½	131½	145	129	95	60
" 19	....	135	150	139	197	122¾	....	178	131¼	....	129¼	95½	60
" 26	134	138	150	139	....	123½	....	176½	132½	143	130	93	60
Feb. 2	135	140	150	139	194	124	125	177½	133½	142	129½	101	60½
" 9	....	139½	....	....	....	124⅜	....	....	132½	....	130⅛	99	60¼
" 16	....	136	152	....	....	123¾	....	177	133¼	144¾	130	97½	60
" 23	....	136	....	138	....	123¾	....	180	134	....	130	97	60
March 1	135	135	152	138	194	124	125	180¼	134	144¾	129½	96	60
" 8	....	135½	....	....	192	124½	....	180½	133½	....	130	98	60
" 15	....	136	....	138	200	126	....	180	133½	144	129	101	59⅛
" 22	133	136	....	139	200	125	....	182	131	144	130	99⅝	60
" 29	....	137	....	140	196	125½	....	....	128¼	145	130¼	99½	60⅛
April 5	135	138	150	140	196	125	125	180	129⅛	145	132	97	61
" 12	....	136	150	141	197	126	....	181½	133	....	132½	97¾	61
" 19	....	136¼	147	140½	....	125½	....	182	132¼	146½	132¾	98	61½
" 26	133	137	....	140	197	125	125	182	130	....	136	98	61
May 3	133	138	148	140	198	124¾	125	184	129¼	145	135	99	59¼
" 10	130	136	148	...	198	125	....	183	130½	145	134¼	97¾	56
" 17	128	133	144	....	197	123	....	183	127	145	135	90	45
" 24 L.	130	126	147	140	197	124	125	181¾	129½	145	128	89	50

May 31	130	128	150	132	197	122	120	183	133	145	132	92	50
June 7	....	129	145	132	195	125	120	182	132	....	130	95	50
" 14	....	125	142	135	194	120	130	180	127	138	127¾	93	48
" 21	....	125	146	130	188	118	115	177	125	140	129 B	89	48 B
" 27 L.	126	120	146	130	188	116	115	177	120	140	129½	87	49
July 7	127	126	146	133	185	118 B	....	177	125	139	128½	89¾	50
" 11	....	127	....	135	185	125	....	177	125	141	127¾	93	52½
" 19	....	128	145	137	188	123	....	176	130	....	130	91	54½
" 26	....	130	145	136	188	122	....	176½	128	....	....	94½	55
August 1	133½	133	145	138	188	123	....	178	128½	....	130⅞	93	55
" 9	....	135	....	138	193	123½	....	178	131	....	133	94½	54½
" 16	131⅞	133	....	138	....	124½	115	177½	133	....	135	94½	54 0
" 22	....	134½	....	....	....	124½	....	177½	133	....	....	95	55
" 29	132	133	....	....	193	122	....	177½	....	....	130	92½	54¾
Sept. 6	....	133	....	140	....	124¾	....	179	132	....	134	93¾	53
" 13	....	132½	....	138	191	124	....	176	132	....	130⅛	94	54
" 20	130	132½	....	139	....	....	....	176½	130	....	132	92	....
" 27	....	130	....	140	....	124½	....	179	128	....	131	92	53½
Oct. 4	....	132	....	140	185	124½	....	177¾	130	140¼	131¾	93½	53
" 11	....	130	....	140¼	185	124½	....	178¼	128¼	140¼	135	94	53
" 18	....	128	150	140½	188	122	....	178⅛	127½	142	134	92	55
" 25	....	130	145	139	....	123¾	....	180	128½	....	133	94½	54
Nov. 1	130	126½	145	139½	....	122	....	178	126¼	141	131	93	55
" 7 L.	129⅞	128	....	137¾	185	124	115	179½	125	142	133	92¼	54 0
" 15	130	130	....	137½	185	123	115	179	126¾	144	134	94⅞	54½
" 22	....	129	....	137¾	....	123½	....	179	125	....	131	94⅞	54
" 29	....	129	....	137½	194	122	....	180	125	143	132½	95	54
Dec. 6	....	130	....	137	194	123	....	180	125	....	131⅝	96	54
" 13	....	129	....	138½	195	120½	....	175	127	....	132	95	54
" 20	....	130½	....	137	191	120	130	175	128½	142	130	90	53
" 27 L.	....	127	....	....	189½	116	130	175	126¾	140	129	90	53
" 31	130	127½	145	137	190	115	130	175	126¼	140	129	88	51

INACTIVE STOCKS—TABLE No. 2—CONTINUED.

1884.	Wells, Fargo Ex.	Baltimore & Ohio.	Boston & Albany.	Boston & Maine.	Boston & Prov.	Cedar R. & Mo.	Cedar R. & Mo. Preferred.	Colum. & Xenia.	Concord.	Concord & Ports-mouth.	Connec. River.	Dayton & Mich. Preferred.	Fitchburg.
Jan. 5	109½	198 B	175½	160	167	101¾	119	150	100	114	164	138	121
" 12	110	....	....	....	....	....	....	....	....	....	....	....	....
" 19	110	199 o	177	161	168 o	....	....	....	....	....	....	....	121
" 26	106	....	....	....	....	....	....	....	....	....	....	....	....
Feb. 2	105	195	177¼	161	166½	101⅛	....	150	100	115	165	138	116
" 9	110	197	178½	161	166	....	....	....	101	....	165	....	116
" 16	114¾	....	....	....	....	....	....	....	....	....	....	....	....
" 23	114	195	178½	160¼	....	....	....	....	101	....	165	....	117
March 1	112	192 B	178½	160	165½	101¾	115	146	101	115	165	139	117
" 8	110	....	176	....	167	....	....	....	100	....	165	....	118
" 15	110	195	....	....	....	....	....	....	....	....	....	....	119
" 22	110	196	177½	160½	167	....	....	....	....	....	....	....	119
" 29	112½	197	178½	165	167½	....	....	....	....	....	....	....	120
April 5	112	198	179½	165	168	106¼	115¾	151	102½	115	169	140	119½
" 12	111	197¾	178½	165	....	....	....	....	103	....	....	....	118
" 19	113½	....	179½	166½	173	....	....	....	103	....	....	....	119
" 26	115	....	180	166	173	....	....	....	....	....	171	....	....
May 3	113½	190	180½	164½	171	113	124	152	101	116	170	141	119½
" 10	105	190	179¼	165	171	....	....	....	102	....	....	....	....
" 17	102	185	174 o	162½	....	....	....	....	....	....	....	....	....
" 24 L.	100	180	174	160 o	....	....	....	....	....	....	....	....	116¼

May 31	102½	179	175	155	168 0	....	....	....	....	....	169 0	....	115¾
June 7	105	179	170½	155	167	101	....	152	100	116	168	141	116½
" 14	109⅞	....	170	156	....	....	....	....	100	....	160	....	117¼
" 21	100	177	....	....	166	....	....	....	....	....	164	....	....
" 27 L	100	174	156	145	161	85	....	....	102	....	163	....	107
July 7	100	174	155	146	160	....	....	150	100	113	162	140	106½
" 11	100¼	176	164	150	160	....	....	....	101	....	163	....	107
" 19	103	176	164	150½	160	....	....	....	101	....	....	....	110¼
" 26	104	176	164½	153	159	....	....	....	101	....	....	....	113
August 1	104	176	166	155¼	160	....	....	145	101	113	163	139½	116
" 9	106	175	....	....	....	....	....	....	101	....	....	....	114
" 16	106	....	....	....	165	....	....	....	....	....	....	....	111
" 22	107	174	169¾	159½	....	....	....	....	....	....	163	....	113
" 29	109	174	170	159 0	163½	....	....	....	....	....	....	....	113
Sept. 6	....	174	168	159½	164	....	....	145	101	114	164	139½	112
" 13	105½	176	....	160	164	....	....	....	....	....	....	....	113
" 20	107	175	169	162	165	....	....	....	....	....	164	....	113
" 27	108	174	166½	162	162½	....	....	....	102	....	164	....	113
Oct. 4	106	174	167½	162¼	164	....	....	140	102	115	164½	139½	114
" 11	108	178	....	165	166	....	....	....	....	....	....	....	112
" 18	110	174	....	166¼	167	....	....	....	101½	....	164 0	....	....
" 25	110	167	164	164	163	....	....	....	102	....	....	....	110
Nov. 1	108	167	164½	165	164	....	....	140	102	115	163	139	107½
" 7 L	110	165	168	160	164	....	....	....	....	....	....	....	....
" 15	107	165	....	161	162	....	....	....	102	....	....	....	107
" 22	109¾	....	167	161	163	....	....	....	102	....	163	....	110½
" 29	109½	175	167	162½	164	....	....	....	101	....	167	....	112
Dec. 6	109	174	167½	163¼	165	....	....	140	101	115	163	139	112¾
" 13	108	....	....	....	....	....	....	....	....	....	....	....	....
" 20	109½	....	168½	166½	167	....	....	....	....	....	160	....	108½
" 29 L	109¾	165	169	165¼	166	....	....	....	102	....	163	....	110
" 31	109¾	165	169½	166½	168	....	....	145	102	113	163	140	111

INACTIVE STOCKS—TABLE No. 2—Continued.

1884.	Lehigh Valley.	Little Miami.	Manchester & Lawrence.	Nashua & Lowell.	Northern New Hampshire.	Norwich & Wor.	Old Colony.	Portland, Saco & Portsmouth.	Pennsylvania.	Philadelphia, Ger. & N.	Terre Haute & Indianapolis.	United R. R. of N. J.	Vermont & Mass.	Warren.
Jan. 5	142¼	147½	166	145	110½	148	139½	112	117	110	106	194½	133¼	116
" 12	....	....	....	....	....	....	....	....	....	....	....	....	....	....
" 19	132½	....	....	145	112 0	155	138¾	111	115¾	110	....	194	133 0	....
" 26	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Feb. 2	135½	148	164½	145	109	155	138½	111½	116¾	....	....	194	132½	....
" 9	136	....	....	....	110	155	138¼	112	117¼	106½	....	....	....	....
" 16	....	....	....	....	....	....	....	....	....	....	....	....	....	....
" 23	142½	....	....	....	110½	....	138	....	120½	108	....	195	130	....
March 1	142	150	164½	147	110½	156	138	113	120	....	105	195½	130	....
" 8	142	....	....	....	111	....	138¼	113	118½	109½	....	195¾	130	....
" 15	....	....	....	....	112½	157	139½	....	118¾	110	....	195	....	....
" 22	141	....	....	....	112½	....	140	....	120½	111	....	195½	....	....
" 29	140	....	....	....	....	....	140½	....	119	111	....	192½	....	....
April 5	139	150	169	147	112	158	143	113¼	119¾	....	....	192½	131½	122½
" 12	140	....	....	143	112	....	140	....	120½	111½	....	192⅜	....	....
" 19	139¾	....	....	145	....	....	140¼	....	121½	111½	....	192½	....	....
" 26	138	....	....	145	....	....	141¾	....	120	111½	....	192½	131	....
May 3	137	151	165	143	112	160	145	115	119¼	....	102	193¼	130½	119
" 10	136¼	....	....	145	112¾	161	143½	....	114	111	....	193 0	....	....
" 17	....	....	....	145	....	161	141	....	110¾	111	....	....	....	....
" 24 L	120	...	..	145	112½	....	144	....	109¼	....	....	190	131½	....

May 31.......	129	....	....	145	110½	160	143½	....	109	110 0	....	190	....	....
June 7.......	130½	150	162½	145	111½	159	143 0	112½	111¼	....	100	188½	131½	118
" 14.......	128	....	....	145	115	....	139	....	106	....	....	....	....	....
" 21.......	129	....	....	145	115	....	139½	....	106	108½	....	190½	131½	....
" 27 L.....	124	....	163	145	114	163	135	113	99¾	108½	....	187	131¾	....
July 7.......	124	145	161	145	115	153	132	110	104	....	....	....	131½	114
" 11.......	127	....	....	....	....	....	139½	....	105¼	108½	....	....	....	....
" 19.......	128	....	....	....	....	....	....	....	108½	....	....	190	....	....
" 26.......	128¾	....	....	....	116	....	....	....	110	108 0	....	190½	....	....
August 1.....	128	145	....	....	116	161	139½	114½	111	....	100	192	127	....
" 9....	129	....	....	....	116	....	140	113	112½	....	....	193	....	....
" 16....	126	....	....	....	....	....	139½	....	112½	....	....	194	....	....
" 22....	128	....	....	....	116	....	....	....	113	....	....	192½	....	....
" 29....	128	....	....	150	....	160	140	....	111	103½	....	194	125	....
Sept. 6.......	128	144	....	150	115	161	140½	111¾	110½	....	100	....	127	....
" 13.......	130¼	....	....	150	115	....	141¼	....	111½	103½	....	192½	....	....
" 20.......	127	....	....	150	115	....	....	....	108¾	103½	....	193	128	....
" 27.......	126 0	....	....	150	115¾	160	143	112½	107½	103½	....	....	....	....
Oct. 4.......	124	143 0	165	150	116	163½	143⅝	113	107¾	....	....	190 0	128½	....
" 11.......	125	....	....	147½	116½	160	145½	113	107½	104	....	190	127	....
" 18.......	125	....	....	147½	116½	....	145½	113	105¼	....	...	195½	....	....
" 25.......	120	....	....	147½	116	....	143	....	101	....	....	....	....	....
Nov. 1.......	117¾	142	166	147½	116½	164	143	113¼	102¾	....	105 0	193	126	108
" 7 L.....	116	....	....	147½	....	....	142	....	99½	....	....	193	127	....
" 15.......	118½	....	....	144	....	....	143	....	100¾	....	....	193	....	....
" 22.......	121	....	....	144	116	....	143	....	102	105	....	194	127⅛	....
" 29.......	121	....	....	144	....	....	143½	....	102¼	106	....	....	....	....
Dec. 6.......	121½	142	170	145	115	164	145½	113	103	....	100 0	193	127	....
" 13.......	....	....	....	....	....	....	....	....	....	....	....	....	....	....
" 20.......	120¼	....	....	144	116	166	143	....	102	106	....	....	....	....
" 29 L.....	117	140	....	142	116	....	144	....	102	106	....	....	....	....
" 31......	114½	140	171½	142	116½	162	144⅛	113	100	....	91	193	128¼	....

In the next four tables prices of other securities during the year 1884 are quoted for comparison with the prices of the railway stocks already mentioned. In Table No. 3 the prices of railway bonds near the beginning of each month are shown, the quotations being as far as possible the prices bid. Where no bid price near the desired date is found, the price at which the security was offered is in some instances quoted, and designated by the letter (o.) In the selection of these bonds the aim has been to represent the securities of the most important roads in the country as far as possible, and to take such securities as could also be appropriately quoted for the earlier years with which comparison is made. Hence, only one class of bonds for each company has been selected, as a rule, and one neither unquoted in former years, nor so nearly due at this time as to have ceased to be a fair representative of the outstanding securities of the corporation.

In Table No. 4, bonds of the United States, of certain of the States, and of the leading cities are quoted. Here, also, the prices bid near the first of each month are given as a rule, and the selection has been made with a view to the comparison of securities for a term of years.

In Table No. 5 are quoted the prices of stocks of New York banks in the New York market, and of Boston banks in the Boston market, showing the fluctuations during the same year. All the banks of these two cities are included whose stocks have been quoted during the term of years under consideration, and it has been believed that the general course of securities of this class will thus be better represented than by an effort to select from the great number of banks of different cities.

In Table No. 6 are given the prices of New England manufacturing stocks in the Boston market. As a rule, the quotations are of prices bid; but in some instances, where no record of the state of the market near the first of the

month was found, the quotations are believed to represent the nearest actual sale. The stocks of all the manufacturing corporations usually quoted in New York or Boston are included whose stocks have been quoted continuously during the past 13 years.

In Table No. 7 the state of the market for active railway stocks in each of the past 13 years is traced. The highest and lowest prices attained during each year by the active securities compared are given, with the date of such sales, and with the closing price for the year. In this comparison it has not been possible to use the same securities for the entire period under review. The actual tone of the market in the years 1872 to 1876 inclusive would not be correctly shown by a comparison of prices of the same stocks which were also quoted in 1884, since some, formerly of great importance, have wholly passed out of existence, or have ceased to be of consequence in speculation. The reverse is equally true A comparison of those stocks only which were in existence and quoted 13 years ago, would not give a correct representation of the course of the market since 1881. Accordingly, the 60 most active securities in 1872, embracing as many as possible of those which were also quoted in 1884, are taken as a basis, and by comparison of these the course of the market to its point of greatest depression in 1877 and 1878 is shown. A number of securities had then ceased to be important, and from year to year, until 1881, new securities are substituted for them ; but care is taken, in the change each year, that the new stocks included are at the point of change of substantially the same aggregate price as the older stocks omitted. For the years 1881–1884, inclusive, the record is again continuous, the same stocks being quoted each year. Footings showing the average price of all the stocks included, at their highest point, at their lowest point, and at the close each year, are given in the preceding pages.

TABLE No 3—PRICES OF RAILROAD BONDS, 1884.

BONDS.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
Atch., Top. & St. F. g. l., 1902......7	114½	116	117	117	117¾	115	113	114	116½	116¼	117½	118	118¼
Balt. & Ohio, sterling, 1927.........5	106	107	108	108	108	108	106	105	105	106	106	116	103
Boston & Albany, 1895...........6	118	118	118¾	119¼	119	119½	117½	117	117	117	117	117½	118
Boston & Lowell, 1896.............6	111	112¾	112¼	114	114	112	111	112¼	112	112	112	115	115¾
Bur. & Mo. River 7, 1st m.........	118	118½	118¼	118½	118½	117½	112	115	115	115½	115¼	117	116½
Catawissa, 1900.................7	122	123	120	122	122	122	120	....	119 o	118	119	119	120
Cedar R. & Mo. 1st, 1916...........7	122¾	122¾	122½	123½	123	122	122	120	121¾	121	122	121¾	121½
Cent. of N. J. Conv. Ass. 1902...7	113¼	113	115¾	115	111	104	103	108	108 o	106	101½	100	98
Central of O. 1st, 1890............6	110	110	111	108¾	108⅝	107¾	108	108½	106	106	106¾	107	107
Cent. Pac., S. Joaquin l. g..........6	108½	109¾	111	108	108	104	100	104	104	100½	102	102½	104
Chic. & Alt. l. g., 1903............6	119	....	117	116	117	116	116	113	114	117	117	118	118
Chic., B. & Q. Consols, 1903........7	129½	129½	130	129	129	127	122¼	125	125	127 o	129 o	130⅛	131
Chic., M. & St. P., cons., 1903.....7	121	120½	122½	124⅞	124¼	121½	113¼	115	120	118¼	117	121¾	121
Chic. & N. W. Cons. g, 1902........7	124	124½	127½	128	126	124½	121¼	124 o	124	125½	126 o	124¼	125
Chic., R. I. & P., 1917.............6	125½	126½	126½	126⅜	127	125	120	123¾	125	124	124	126	128½
Cl., Col., C. & I. Cons. M., 1914...7	118¼	118½	121	122	124½	117	120	113½	118½	120 o	119½	119½	....
Cl. & Pitts. Cons. S. F., 1900........7	123	124	126	127 o	123½	120	119	121	123	124	126	122½	122
Col. & Hock. V. 2d, 1892...........7	105½	105½	105½	105½	105½	104	104	104	104	104	100	100	100
Del., Lack. & W., 1907............7	....	....	130	130	130	133 o	130 o	125	128	126½	125	128	130
Denv. & Rio Grande, 1900.........7	108	108½	111⅜	110¼	91½	95	80	91	92	95 o	70½	81½	81 o
Detroit & B. C. 1st, 1902............8	123	....	119¾	119¾	119¾	118	116	115	116	116	118	118	118
E. Tenn., Va. & Ga. 1st, 1900......7	117	116½	116	117	117½	116	111½	114	114½	115¾	115	114	115
Eastern Mass. Debs., 1906.........6	105	105	105	104	105	105	105	105	105	102	103	103	108
Erie & Pitts. Cons. M., 1898........7	...	110	111	111	111-	109	108	....	110	111	111½	110	110
G. R. & Ind. Ex. l. gr. 1st, '99.....7	107	107	107	100	102	100	100	100½	101	100	100	100	100
Houst. & T. C. 1st g, 1891..........7	107⅝	108½	109⅞	110	110	108	104½	106	103½	104	107	109½	109½
Ill. Cent., 1905....................5	105	105	106	108	108	108	105	105	106	106	106	106	105
Jeff., M. & I. 2d M., 1910..........7	115	115	115	115½	115	115	114	111	114	113	111½	113	113½

Lake S. Cons. 1st, 1900	7	124¼	126½	127¼	128 0	....	126	....	121	124 0	124 0	122½	124	125 0
Lehigh Valley 2d, 1910	7	132	133	133	131¾	133	133	133	132	121½	130 0	131½	133	133
Louisv. & N. Cons. 1st, 1898	7	117	118½	119	115¾	115½	116	117 0	115½	113½	112¼	112¾	114	115½
Mich. Cent. Cons., 1902	7	124	124¾	127	127½	123½	124	123¾	125 0	125	121½	126¾	123½	123
Missouri Pac. 2d M., 1891	7	110	110	111½	112½	110	110	100	104	106	107 0	107½	109	112
Morris & Essex 2d M., 1891	7	114	116½	113⅝	114⅞	114¾	114	112	112	110⅛	110⅝	113¼	113½	113
Nash., Chat. & St. L. 1st, 1913	7	116½	117	118	120	119	122	118½	115	115½	117	116 0	117¼	120
N. Y. Central, M., 1903	7	130¼	130½	131¼	132½	132¾	130	126	130	129½	131	129¼	131½	132½
N. Y. Elevated 1st, 1906	7	116	117½	118	120	120	118	112½	115	117	118 0	108½	120	120 0
N. Y. & Harlem, 1900	7	130½	132½	132	134	128½	....	....	128	129¼	....	129½	127	128½
N. Y., L. E. & W. 1st C. g, 1920	7	127	127¾	131	129½	124	121¾	115	115½	116	116½	113	117¾	119½
North. Cen. C. M. g, 1900	6	117¼	115	117	117¼	119½	116	117	....	116 0	116 0	116	115	118 0
Nor. & Worc. 1st, 1897	6	116	116	116	116	117	116	114	114	115	115	116	116	116½
Ohio & M. Cons. 1898	7	120 0	117¼	117½	118½	119	118½	111	115½	116½	116½	117	118	119
Old Colony, 1897	6	118	118	120	120¼	121¼	118	118	117½	118¼	118	118	118	119
Penn. Gen. M., 1910, coup.	6	121¾	120½	120	120	122	122	123	122	123	123	122½	122¼	123
Phil. & E., guar., 1920	6	119	116	116	119	120	119	119	116	116	120	121	121	121
Phil. & Read. M., 1911	7	126½	127	127	127	129	....	119 0	118	118	119 0	113	116	112
Phil., Wil. & Balt., 1900	6	113½	113½	113½	113½	113½	112	111	111	111	111	111¾	112	112
Pitts., Ft. W. & C. 2d M., 1912	7	132	133½	136 0	135¾	135¾	133	133	134	135	137½	135½	136	136½
Rich. & Danv. M., 1890	6	103	103	103	104	104	100	100	101	100	103	103	102	102
Rome, W. & O. 2d M., 1892	7	104	104	104	104	106	105	105	106	106	106	106	105½	105½
Rutland 1st M., 1902	6	92½	92	91½	98	97¼	94	93½	97½	97½	98	98	96	98
St. L. & I. M., 2d M., g., '97	7	106	107¾	109½	111	108½	103	100 0	103½	104	104¼	103½	103 0	103¾
St. L. & S. F. 2d, class B, 1906		96⅛	96¼	99¼	104	101	98	93 0	93	98½	100⅛	99	99½	99
St. L., Vand. & T. H. 1st, '97	7	114½	116	116½	117	117½	115	110	117	117	116½	117	119 0	....
Tex. & Pac. Cons., g., 1905	6	90 0	90	89	92	91	84 0	70	50	76 0	....	67½	65	75
United R.R. N. J. M., 1901	6	121	121	121	120	120	120	120	120	121	118	118	118	120
Union P. Sink. F., 1893	8	117	117½	118¼	114¾	111	107¾	101	108	108½	109½	112	117	117½
Utica & B. R. Mort., 1891	7	....	114	112	112	112	110	100	110	110	100	110	....	110
Wabash 2d Ext., 1893	7	95	97	98½	100½	90	85 0	78½	85	90	89	88	95 0	95 0
West. Md. 3, end., 1900	6	113¾	115	127½	127½	127½	127½	125	133 0	133 0	122	122	122 0	122 0

TABLE No. 4—U. S., STATE AND CITY BONDS, 1884.

BONDS.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
U. S. 6s, cur. '99....	135½	137	137	138½	138	130	131	134	135	133	132½	134	131
" 4s, 1907.......	123½	123¾	123⅞	123⅞	123¼	120⅝	118½	120¼	120⅛	120	121⅞	123¾	122⅞
" 4½s, 1891.....	114⅜	114¼	114⅝	113¾	113⅜	111⅜	111½	112⅝	111⅞	112¼	113¾	114	113⅛
Maine 6s...........	112	112	113	113	114¼	113½	109	109½	110	111	110½	111	111
Penn. 5s...........	118	118	118	119	119	119	118	116	115	115	115	....	....
Texas gold 7, '92.....	114	125	125	125	125	120	120	120	120	115	115	115	115
Arkansas 6, funded...	11	12	12½	12	14	9½	5	9	3	....	....	2	2½
Ark. 7, L. R. & Fr. S..	20	19	21	....	12	9½	5	15	5	12	10	10	10
Georgia 6...........	103	103	102	103	104	102	100	100	100	98	99	101	101
" 7, endorsed..	102½	104	105	105½	105	104	100	102	102	102	102	104	104
Louisiana 7, consols..	75	77½	77⅝	75¾	77	70½	67	67	68	70	70	75	74½
Michigan 7, 1890.....	116	117	117	115	118	115	110	107	110	110	110	112	117
Missouri 6, 1889–90..	107	110	110	110	111	110	107	107	108	107	108½	109	110
Mo. Fund'g, 1894–95	117	117	117	118	118	118	114	115	116	115	115	115	115
N. York 6, 9 coup, '92	113	113	117	115	115	117	....	115	115	110	115	115	117
" 6, gold coup, '93	116	117	120	117	117	120	....	117	117	115	117	117	120
N. Car. 6, old A. & O.	29	29	30	30	32	30	28	29	29	29	29	30	30
Ohio 6, 1886........	106½	107	107	107¼	107¼	105	104	105	105¼	105	105¼	106	105½
Rhode Island 6......	116	122	120	120	120	115	115	112	112	110	110	115	112
Virginia 6, old.......	40	40	40	40	40	40	30	35	37	37	37	40	38
" 6, consols, 1905	60	61	55	60	60	55	30	45	50	50	50	52	50
Dist. Col. 3, '65–1924.	113	114	112½	114⅝	113½	112	109	111¼	109	109⅞	109⅞	112	114½
Albany Long 6......	108	108	112	112	112	110	110	110	110	110	110	110	111
Atlanta 8...........	110	110	110	110	110	110	108	108	108	108	107	107	107
Augusta, Me., 6, '87.	105¼	104½	104½	104½	106	104¼	103½	103	103	104⅛	104⅛	104⅛	103½
Augusta, Ga., 7s....	107	107	107	107	107	105	105	105	103	102	102	102	103
Baltimore 6, '90.....	113½	113¾	115½	113¼	113½	112	110½	112	113	112½	110	109¾	110
Bangor, Me., 6, '94...	111½	112	112	112	112	111	110	110	110	111	111	111	111

Bath, Me., 6, R.R...	102	102	102	102	103¼	103¼	103½	103¾	103¼	101	102½	101	102½
Boston 6, cur.........	126½	128	129	131	134	130	128	128	128	128	128	128	127
" 5, gold long..	116¾	118½	118½	119¾	119¾	118½	117	116	116	116	117¾	117¾	117
Brooklyn 7, Pk......	145	145	145	145	145	140	140	138	138	138	138	140	140
" 7, Br......	140	140	140	140	140	140	140	139	139	139	139	139	139
Cambridge 6, W....	119	119½	119½	119½	120	118	118	118	119	117	116	117	116½
Charleston 7, Fl ...	30	30	30	30	50	50	50	50	50	50	55	55	55
Chicago 7, '99.......	116½	116½	116½	116½	117½	117½	116	116	116	116	116	116	116
" Cook 7, '92..	116½	116½	116½	116¾	117⅜	117⅜	116	116	114	114	114	114	114
Cincinnati 7–30......	129	129	129¼	129¾	129	128½	125	126	125	125	125	125	126½
" So. R.R. 6s....	118	118	118½	119½	119½	118	115	115	115	115	114½	115	116½
Nashville 6, long....	100	100	100	100	100	100	100	100	102	103	105	105	105
Columbus, Ga., 7.....	100	100	105	....	....	...	100	100	105	102	102	102	100
Detroit 7, long......	120	125	125	125	125	120	117	117	114	114	114	114	114
Hartford 6..........	107	107	107	107	107	107	107	107	107	107	107	107	106
Jersey City 7, W, '99.	97	100	104	100	108	103	103	102	105	100	100	105	107
Louisville 6, long.....	108	109	109	108	108	107	105	105	106	106	105	105	104
Lowell 6, '90.........	112	112	112	113¾	113¾	113	112	112½	112¼	112¼	112	112	112
Lynchburg 6.........	100	110	105	105	105	100	....	....	106	106	106	106	106
Lynn 6, '87.........	105	105½	104	104	104	103½	103	103	103	103½	103½	103½	103
Macon 7.............	100	....	....	105	105	....	100	100	100	100	100	100	105
New York 6, 1901....	130	133	133	133	133	130	130	121	124	124	125	126	126
" 7, 1896....	137	137	137	137	137	137	137	125	125	125	125	130	130
Norfolk 6, '85.......	115	105	105	105	103	103	103	103	103	100	100	100	100
Petersburg 6........	107	103	103	105	105	102	100	100	100	100	100	100	100
Philadelphia 6, '95...	129	130	130	130	131	131	125	126	127	128	130	131	130
Pittsburg 5, '13......	107	107	108	108	109	108	104	104	107	107	107	107	107
Portland 6, '95......	115	110½	112	112	113	112	111	111	112	112	112	112	112
Richmond 6, '14....	115¾	113½	113½	113½	114	114	111	110	112	110	112	112	114
St. Louis 6, '92......	110½	110¼	110	110¼	110½	108½	107½	....	108½	109	109½	109¼	109½
Salem 6, W.........	124	124	124	124	124	124	122	122	122	123	123	123	123
Worcester 6, '92. ...	114¾	115	115	115	115½	117	116	115½	116½	116½	116	114	114

TABLE No. 5—PRICES OF BANK STOCKS, 1884.

NEW YORK BANKS.

STOCKS.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
American............	155	160¼	172 0	171	175	160	145	150	155	150	150	150	147
American Exchange..	128	132	136 0	132	133	126 0	124	120	124½	120	120½	117½	115
Broadway............	250	250	270	285	295	240	200	235	235	220	235	240	220
Butchers' & Drovers'..	150	150	155	154	160	....	125	130	130	140	130	150 0	....
Central National.....	125	128	125	131	126	125 0	115	113	112	118 0	119 0	115 0	....
Chatham.............	140	140	140	145	150	150	145	147	148	150	145	145	145
Chemical.............	2020	2020	2020	2020	2020	....	2000	2000	2000	2000	2000	2000	2000
City.................	265	275	275	270	270	270	270	270	265	255	260	260	245
Citizens'...	120	121	124	123¾	123	125 0	110	125 0	125 0	125 0	125 0	125 0	120 0
Commerce...........	150	154	155	156½	155	155 0	147	147	145	144	143	143½	141¾
Continental	120	120	122	122	122½	105	100	100	102 0	100	100	110	110
Corn Exchange.......	165	165	160	160	170	165	150	160	160	160	155	....	156
East River...........	123	120	122	122	....	....	....	....	....	....	....	....	....
Eleventh Ward.......	135	....	...	....	....	....	....	100	....	....	....	....	....
First National........	....	....	....	....	....	....	....	....	850	....	....	110	....
Fourth National.....	128	130½	131	122	132	110	100	120 0	105	112	115½	115	108
Fulton..............	120	125	125	128	128	115	115	110	115	....	120 0	112	112
Gallatin.............	170	172	175	170	170	155	175	170	165	170	180 0	....	150
German American.....	103	101	102	102	107 0	....	....	....	103 0	....	....	....	....
Germania............	145	150	150	150	150	150	150	155	160	170 0	175 0	....	....
Greenwich...........	....	....	....	110	110	....	....	....	....	....	....	....	....
Hanover.............	152	151	156	155	155	155	152	145	145	145	143	142	140
Imp. & Traders'.....	264	268	265	205	266	250	245	252½	250	250	255	256	248
Irving..............	140	140	140	143	142	144	130	140	140	....	....	138	....
Leather Man'f'rs'....	160	170	172	172	172	165	150	150	150	150	150	150	....
Manhattan...... ...	158	160	160	160	160	145	....	150	150	150	150 0	140	140

Marine.............	162	150	165	....	....	....	....	....	....	....	....	....	....
Market.............	140	150	151	150	147	145	....	137	137	137	137	138	136
Mechanics'.........	148	150	150	153	152	140	140	135	....	125	130	131	128
Mechanics' & Tra....	100	100	105	112	110	....	....	90	....	90	....	90	....
Mercantile..........	118	118	119	123	123	120	125 o	112	115	115	120 o	110	115
Merchants'..........	127	130	131	131	131	125	120	130	132	122	125	128	124
Merchants' Exch....	95	91	90	90	90	96 o	....	90 o	90 o	90 o	90 o	90 o	90 o
Metropolitan.........	147½	150	151	152	150	35	55	62	58	53 o	26 o	25	25 o
Nassau.............	130	130	143	135	150 o	150 o	....	....	128	130	....	120	125
New York...........	165	170	167	165	165	155	150	150	160	160	150	158	150
N. Y. Nat. Exchange.	110	110	110	110	110	....	100	100	100	100	100	100	95
N. Y. County........	140	150	150	150	150	....	....	145	145	140	140	140	140
Ninth National.......	120	122	123	123	120	115	110	115	115	110	100	....	100
North America.......	104	105	107	108	108	110	95	95	100	100½	100	101	....
North River.........	115	118	120	122	....	....	....	115	120	....	....	....	....
Oriental............	140	150	....	150	155	120	130	145	140	130	130	140	130
Pacific.............	162	162	167	162	162	145	140	152	150	160 o	160 o	160 o	160 o
Park...............	162	164	165	166	165	155	150	152	152	150	151 o	142	141
People's............	145	155	150½	152	154	145	120	130	150	150	150	150	150
Phœnix.............	105	104	110 o	107	106	100 o	100	102	100	102	100	100	100
Republic............	115	122	125	132	131	120 o	118 o	112	135 o	113 o	120 o	120 o	115 o
Second National.....	120	120	135	135	....	....	....	....	....	....	....	100	....
Seventh Ward........	105	100	110	110	110	....	....	100	95	....	....	90	90
Shoe & Leather......	135	140	140	142	142	130	130	137	136	130	140 o	140 o	135 o
St. Nicholas.........	130	153½	....	150	150	135	135	125	135 o	125	125 o	125 o	....
State of N. Y.........	125	125	125	125	124	120	....	110 o	105	105	106	105	107
Tradesmen's........	108	110	110	112	110	100	106½	100	101 o	....	100 o	100 o	97 o
Union..............	171	172	172	175	170	....	....	150	150	150	150	150	150

TABLE No. 5—PRICES BANK STOCKS, 1884—CONTINUED.

BOSTON BANKS.

STOCKS.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
Atlantic	154	154	....	150	152	156	158	152	152	150	150¼	151¼	151⅜
Atlas	123½	124	....	128	127	125	123	123	123	119	117	114½	115
Blackstone	100½	102¼	....	102¼	108½	105	103½	103	104½	102½	103	103½	102
Boston National	117½	117½	....	113½	120	119	117	115	116	114	112½	111½	112½
Boylston	116½	116½	....	116	116	111½	115	114½	114½	113	113	114¾	115
Broadway	99	98	....	100	100	100	100	100	100	95	95	100	100
Bunker Hill	183	182	....	181	182	185	185	185	185	182	183½	184	186
City	112¾	113	....	111	111	110½	111½	110	110	107½	107½	108	108½
Columbian	127	128	....	127	128¾	128	127½	127½	127	125	124	124	125
Commerce	115½	116	....	120	121¼	116	114	113½	113	110½	109½	112	115
Commonwealth	111½	111	....	113	113	112	114	114	114	112	113½	110	112
Continental	108	108	....	107	109	112	111	106	106½	105	103½	104½	106
Eagle	109	109½	....	108	108½	108	104	104	104	102	105½	105½	110¼
Eliot	124	121	....	121	121	120	119	109	120	117	121⅞	119	121
Everett	111½	111½	....	110	....	109	109	105	105	102	102½	102	91
Exchange	120	120	....	118	123	120	117	119¾	117¾	115	113¾	112½	112½
Faneuil Hall	130½	130¼	....	129	131	130½	129½	129	129	130	129½	130	130½
First National	195	194	....	193	193	197	195	198	198	195	195	198	197
First Ward	117	117	....	115	115	113	113	113	113	112	112	112	114
Freeman's	118½	117¼	....	107	108	112	104	100	100	99	105¼	103½	107¼
Globe	103	103	....	101	102	102	101	100	100	98½	98½	98½	95½
Hamilton	118	118	....	115	120½	119½	118	117	117	118	119½	123	123¼
Hide & Leather	111	113¼	....	112½	118¾	118½	116	116¾	118	115	116	113½	113
Howard	122	120	....	119	121½	117	117	117	114¾	112	112¾	113	112¾
Manufacturers'	97½	97	....	96	96	96	94	94	94	94½	94½	95	95
Market	92	90	....	91	95	94	94	94	95	90	93	90	90¼

Massachusetts	112	111½	....	110½	111½	111	110	107¾	107	105	106	107	102¼
Maverick	223	223 0	....	220	220	215	215	215	215	215	215	215	220
Mechanics'	129½	129	....	127	130½	129	129	128	127½	124	125	125	127
Merchants'	133½	133	....	133	134	134	135½	135¾	137	134¼	132¾	132	138¾
Monument	205	203	....	201	201	200	200	203	203	202	202	203	205
Mt. Vernon	120	123	....	130	139¾	125½	125½	125½	127	125	125	127	126¼
New England	133½	133	....	135	139	134	132	131½	131½	129	133	132¾	138
North	129½	129	....	126½	129¼	126	124	124½	124	121	119½	119½	119⅝
North America	108	107¼	....	108	110	109	107¾	100	100	102½	103	103	105
Old Boston	64	63	....	64	63½	60½	59¾	59½	60	59	60	60	60½
People's	160	161	....	156	158	157	155	155	155	156	156	159¾	160
Redemption	127½	126	....	124	125	123	117	118	118	117	110	112½	112
Republic	119	126½	....	127	129	127	125	125	128½	125	127	128½	130¾
Revere	118	118	....	117	119½	117½	116	118	117¾	115	118½	119	121
Rockland	132	133	....	135	140	139	137	134¾	136½	132	132	136¼	135½
Second National	153	153	....	161	161¾	159½	154	152	152	152	149	150½	151
Security	177	180	....	180	180	180	175	175	175	177	178½	178	178½
Shawmut	116	115¼	....	114	116	115	115½	115	115	112	114¼	112½	112¾
Shoe & Leather	95	92	....	94	100¼	100	95	90	91	94	95	95½	95
State	129	127	....	125½	124	120	121½	120	120	119½	117	117½	118¼
Suffolk	119¼	119	....	118	119¼	118	115	114⅞	115½	115¾	112	113	113¼
Third National	94	95 0	....	90	92	91	88	88	88	86	85	83	85
Traders'	82½	80	....	90	....	93½	90	90½	90½	90	92½	92½	93
Tremont	107½	108	....	108½	107½	108	106	105	104¾	105	103	102	102
Union	142	143¼	....	140	145	141½	140	140	140	140	137	135	135½
Washington	131	133	....	130	131	130	130	130	130½	125	125	125	127
Webster	109	109¼	....	107	106½	105½	101½	100	100	98	101	100	110

TABLE No. 6—PRICES NEW ENGLAND MANUFACTURING STOCKS, 1884.

STOCKS.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
Amoskeag	204¾	199½	200	200	200	193½	185½	185	192	190	182	180	189¾
Androscoggin	130	130	132	132¾	132¾	132½	125½	125	125½	125¾	122	111	115
Appleton	117½	117½	....	110	112½	106	105	104½	104½	105	102½	102½	102½
Atlantic	137	120	120	116	113	110	105	100	102	104	103½	100	100
Bates	165	160	165	159	152	150	150	130	130	144¾	125	112	110
Boott	185	182½	182½	170	165	160	160	153½	153½	157½	156½	149½	150
Boston	104	102	102	100	97	94	97¼	95	95	97½	97	97	94½
Boston Belting	138	133	136	141	141	150	149	148	149½	150	149	149½	149¼
Boston Duck	139⅝	128⅝	128⅝	143⅝	135¾	135¾	142⅞	132⅛	132⅛	135⅝	121⅜	121⅜	125
Cabot	112	....	....	107	....	....	104	....	....	104	....	....	100
Chicopee	156	150	150	160	150	147	145	140	135	145	130	125	120
Cocheco	106½	101	101	104	100	95	90	85	92	90	89½	88	96
Collins	110	107½	105	105	105	102½	90	80	87½	85	80	87½	87½
Continental	75	75	68	70	70	68	68	65	65	68	64	64	62
Douglas Axe	120	120	120	120	115	115	100	99	85	82¾	81	84½	83
Dwight	130	120	120	120	118	112	117	107	115	116	110	110	108
Everett	85	75	75	90	75	75	92	89	89½	90	87	85	87½
Franklin	96	96	97	96	97	95	96	90	90	98	97	97	95
Great Falls	75	67	65	64	64½	55	58⅛	57	57	58⅛	57	55	63
Hamilton	95	90	82½	85½	81½	76	75¾	74½	74½	75	74½	74½	75
Hamilton Woolen	100	....	....	99½	....	....	85	....	....	75	....	....	75
Hartford Carpet	200	198	205	205	205	205	200	195	192	192	192	188	185
Hill	89	88	86	87½	83	81	80	77	77	79	78	78	80½
Holyoke W. P.	220	220	220	225	220	220	220	220	220	220	217 0	215 0	203
Jackson	120	119½	114	115	115	102½	106	102½	102½	106	102½	100	115
Laconia	122½	115	102½	103¾	103¾	102½	115	95	111¼	106⅞	103¾	107½	108⅛
Lancaster	123¾	122½	122½	130	133¾	130	129⅜	....	122¾	118¾	117½	117½	143¾
Lawrence	155½	152½	152½	158½	153½	149	148½	147½	147½	155½	152	147½	155

Lowell	91	89⅛	89⅞	90	90	85½	80¾	80½	80½	80½	84¼	82⅜	82⅜
Lowell Bleachery	115	116½	116½	117¼	116½	116½	117	110	117½	118⅛	117½	117½	115½
Lowell Machine Shop	180	174	174	180	175	175	160	170	170	150	149	148	149
Lyman	90	80	75	77	75½	70	65	67	59	60	57½	56	71
Manchester	127¾	129	132	132½	132	132	130	128	128	135⅜	135	135	132
Mass. Cotton	116¼	110	110½	112¾	112½	112½	112¾	107½	107½	107½	105	104	105¾
Merrimack	127½	125	125	125¾	125	124	118	115½	115½	122	115½	115	126½
Middlesex	200	185	177	175	173	158	150	140	140	160	159	159	155
Nashua	123	120	114	115	114	105	95	94	96	98	96	95	97
Naumkeag	123	121	121	121	125	122	110	108	108	105	100	96	100⅛
N. E. Glass	21⅜	20½	20½	20½	19¼	19¼	19¼	19¼	19¼	19¼	19¼	19¼	....
Otis	140	....	....	145½	....	....	143	....	....	140	......	......	135
Pacific	121	119½	119½	129½	128½	124½	128	127	127½	128	127½	127½	146½
Pepperell	217	203	195	197	196	199	201	190	190	200	197	197	200
Salmon Falls	96⅜	95	95	101⅜	100	100	98⅛	96⅜	96⅜	98⅛	99	98⅛	96⅜
Sandwich Glass	62½	62½	62½	62½	78¾	78¾	79⅝	78¾	......	79⅝	75	80	82½
Stark Mills	116	112½	114	110	109	100	95	89	92½	92¼	89½	90	91¼
Tremont	155¾	156	156	145	150	150	130	129	128	128	115	114	120
Thorndike	110	100	100	105	100	100	105	95	95	105	102	101½	102½
Washington	34	22¼	20½	18	19	19¾	17¼	15	15	15½	16	14½	14¼
Willimantic Linen	200 0	180	168	168	180	176	160	160	140	132	132	120	....
York	110	108	108	107	106⅜	105⅛	108	107⅛	107¼	108⅜	106⅜	106⅜	108⅛

TABLE No. 7—RANGE OF PRICES FOR THIRTEEN YEARS.

STOCKS.	Lowest, 1872.		Highest. 1872.		Close.	Lowest, 1873.		Highest, 1873.		Close.
Atchison, Topeka & Santa Fe	15	....	25½	....	25½	6	....	27	Jan.	6
Boston, Hartford & Erie	3¼	Jan. 2	11⅝	May 18	8¾	1	Nov. 12	10¼	Feb. 3	3¼
Catawissa	19	Nov.	36	Feb.	19	10	Nov. 8	22	Feb.	17
Central of New Jersey	98	Oct. 4	113½	Jan. 15	102½	85	Nov. 10	106½	June 7	102
Central Ohio	28½	Jan.	36	Nov. 28	36	31	Nov. 1	42½	May 8	35
Cheshire Pref	76	....	86¼	....	79	69⅜	Nov.	79	Jan. 2	73
Chicago & Northwestern	66⅜	Jan. 5	230	Nov. 23	82½	31½	Oct. 14	85	Feb. 4	57⅛
Chicago & Northwest Pref	83⅞	Nov. 11	102	Nov. 25	88½	53	Nov. 8	94	Feb. 3	69½
Chicago, Burlington & Quincy	127½	Aug.	143	Feb.	138½	78	Nov.	138½	Jan.	95¾
Chicago, Milwaukee & St. Paul	51	Nov. 11	64½	April 1	54	21½	Nov. 1	62¼	April 21	41½
Chicago, Mil. & St. Paul Pref	72¼	Nov. 11	83	Jan. 20	77¼	43¾	Nov. 7	79½	Jan. 21	66¼
Chicago, Rock Island & Pacific	101	Nov. 11	118⅛	April 2	111⅛	80½	Oct. 14	117⅜	Mch. 11	100⅝
Cincinnati, Hamilton & Dayton	92½	Feb.	93	Feb.	89	70	Dec. 1	93	Mch. 1	73
Cincinnati, Sandusky & Cleveland	17½	Dec. 1	25	April.	18¾	6⅝	Nov.	20¾	Jan.	10½
Cleveland, Col., Cin. & Ind	88	Oct.	95½	July.	93½	65	Nov.	94½	Feb.	72½
Col., Chicago & I. C	19¾	Jan. 5	42¾	May 21	36⅜	16⅜	Nov. 5	43⅞	Feb. 11	27¼
Delaware & Hudson	115	Oct.	124	Jan.	120	99	Nov.	124	Feb.	116
Delaware, Lackawanna & Western	91	Dec. 13	112½	Mch. 16	92¾	79½	Nov. 1	106	June 7	104
Dubuque & Sioux City	60½	July.	74	March.	70	50	Nov.	63	Feb.	50
East Tenn., Virginia & Georgia	53	Nov. 1	60	Jan. 2	53	50 B	July.	53	Jan.	50
Hannibal & St. Joseph	28	Nov. 11	59½	Jan. 17	47½	15	Nov. 7	52⅛	Feb. 7	27½
Hannibal & St. Jo. Pref	44	Sept. 18	71½	Jan. 19	70	21	Nov. 7	71⅛	Jan. 6	35
Illinois Central	119	Nov.	140	June.	125	90	Nov.	126½	Jan.	99
Kansas Pacific	11⅛	Nov.	14¼	March.	11⅛	2	Nov. 8	11¼	Jan. 2	3½
Lake Shore	83½	Nov. 11	98¼	Mch. 30	95⅞	57¼	Nov. 1	97¾	Feb. 15	77⅜
Louisville & Nashville	79	Dec.	81	Oct.	79	50	Dec.	79	March.	53
Memphis & Charleston	24	Dec.	35	April.	24	14	Dec. 20	24	Jan. 2	14
Michigan Central	113	March.	120	June.	115	65	Nov.	111	Feb.	77½

Missouri, Kansas & Texas	35	June.	44⅝	June.	42	4	Dec	40½	Feb.	4
Missouri Pacific	36¼	Jan.	60	Oct.	56	27½	Nov.	60½	Jan.	30
Mobile & Ohio	30	Jan. 2	52	Aug.	45	31	Aug. 20	50	Feb.	31
New Jersey Southern	18	March.	32	May.	25½	6	Nov.	38	April.	9
New York Cen. & Hudson River	89	Nov. 11	101⅞	April 2	100¼	77⅞	Nov. 5	106½	Feb. 4	99
New York, Lake Erie & Western	30	Feb. 5	75⅞	May 20	60⅝	35⅝	Nov. 7	69¼	Feb. 4	46½
New York, Lake Erie & W., Pref.	60	Mch. 2	87	May 20	77½	56¾	Nov. 7	82	Feb. 4	71
Northern Central	73	Nov.	81	April.	76	40	Nov. 8	84	Feb. 25	54
Ohio & Mississippi	40	Nov. 11	51⅞	April 1	48½	21¼	Oct. 14	49⅝	Jan. 24	30⅛
Ohio & Mississippi Pref.	73	Feb.	79	April.	74	50	Nov.	75½	April.	58
Pacific Mail	53⅝	Jan. 2	103¼	Oct. 22	73⅛	25	Oct. 15	76⅞	Feb. 7	38½
Philadelphia & Erie	50	Nov.	58½	April.	54¾	28	Nov. 8	56	Feb.	46
Philadelphia & Reading	111¼	Jan.	122½	July.	113½	97½	Oct. 18	117¼	Jan. 15	111½
Pullman Car Co.	100	....	115	....	110	88	Nov. 7	115	April.	95 B
Quicksilver	25½	Jan. 13	49¼	Dec. 6	46½	18	Sept. 30	46½	Jan. 2	28
Quicksilver Pref.	30	Jan. 13	59	Oct. 21	53	25	Nov. 6	57	Feb. 1	33
Rome, Watertown & Ogdensburg	94	Sept.	101½	Feb.	94	76	Dec.	88	August.	76
Rutland	7½	July.	25¼	Jan.	13	8	Oct. 1	13	Jan. 2	8
Rutland Pref.	50	Oct.	80	Jan.	58	38½	Nov.	61½	Feb.	50
St. Louis, Alton & Terre Haute	22	Jan.	28	March.	22	8	Dec.	25	March.	15
St. Louis, Alton & T. H. Pref.	44	Aug.	66	March.	44	20	Nov.	39	Sept.	34¾
St. Louis & Iron Mountain	59	Jan.	103	May.	94	49	Dec.	97½	Jan.	49
St. Louis, Kansas City & N. Pref.	62	Nov.	77½	May.	65	21	Oct.	70	Jan.	31
Toledo, Wabash & Western	64	Nov.	80⅛	April.	75¼	32¾	Oct. 15	75¾	Jan. 2	49⅛
Toledo, Wabash & Western Pref.	86	Jan.	90	Oct.	90	55	Nov.	85	July.	71⅜
Union Pacific	28½	Jan. 5.	42	April 1	37⅝	14¾	Nov. 1	39½	Jan. 4	30⅜
Vermont & Canada	59	Sept.	100½	Feb.	60	45	Dec.	70	....	45
Western Union	67½	Sept. 18	82½	Dec. 23	80⅞	43¼	Nov. 1	94½	Feb. 6	73
Canton	76	Jan. 6.	107	Oct. 23	102½	55	Oct. 28	110	May 8	70
Consolidation	34½	March.	49	Nov.	47⅛	38	Oct. 31	58½	April 23	50
Maryland Coal	15	Sept.	26	Jan.	21	13	Nov. 3	28	Mch. 17	19
Spring Mountain Coal	50	Sept.	67½	Jan.	60	39¾	Dec.	62	March.	39¾

TABLE No. 7—RANGE OF PRICES FOR THIRTEEN YEARS.

STOCKS.	Lowest, 1874.	Highest, 1874.	Close.	Lowest, 1875.	Highest, 1875.	Close.
Atchison, Topeka & Santa Fe	6	14⅞	10	9¾	19	10
Boston, Hartford & Erie	⅝	3½	⅝	....	....	...
Catawissa	8 July 4	18 Feb. 7	15¾	16¾ Nov.	23⅜ Feb. 6	19
Central of New Jersey	98 Jan. 3	109½ Feb. 10	107½	99½ Oct. 8	120 April 7	106¼
Central Ohio	40 Jan. 31	45 Nov. 21	44½	41½ June 26	45¾ Jan. 23	41½
Cheshire Pref.	70	81	71	38 Dec.	70	38
Chicago & Northwestern	34¾ July 15	62¼ Jan. 9	47⅞	33⅜ Oct. 9.	48⅜ Jan. 4	38⅞
Chicago & Northwest Pref.	51 Sept. 10	78⅛ Feb. 9	62	46 Oct. 9	62¾ Jan. 2	56½
Chicago, Burlington & Quincy	97 Jan.	112 Feb.	109	103¼ Feb.	119 April	113
Chicago, Milwaukee & St. Paul	31¼ May.	49¾ Jan.	39	32 May.	40⅛ April	35¾
Chicago, Mil. & St. Paul Pref.	48 May.	74⅞ Feb.	58¼	51 March.	67¼ Dec.	67
Chicago, Rock Island & Pacific	92½ Aug. 19	109⅛ Feb. 9	103¼	100½ May 28	109⅜ Aug. 19	105
Cincinnati, Hamilton & Dayton	60 Oct. 10	80 Jan. 31	63	48 Oct. 15	63 Jan. 2	48
Cincinnati, Sandusky & Cleveland	7½	11	9⅝	8⅜	15	9
Cleveland, Col., Cin. & Ind.	59 Dec.	89¼ Feb.	63½	42 July.	71 Jan.	58
Col., Chicago & I. C.	8 Sept. 3	32⅝ Mch. 30	9¾	3 June 18	9¾ Jan. 14	3⅝
Delaware & Hudson	113 August.	121 Jan.	116¾	110¼ Feb.	124 Dec.	124
Delaware, Lackawanna & Western	99 Jan. 2	112⅜ Feb. 10	109¼	106½ Jan. 2	123 April 27	120½
Dubuque & Sioux City	55 Jan.	65 Feb.	50 B	46 Feb.	70 Dec.	70
East Tenn., Virginia & Georgia	50 Oct. 17	50 Mch. 14	50 B	40 Oct.	50 Jan.	40
Hannibal & St. Joseph	22½ Sept. 7	34¼ Jan. 12	25¾	15⅞ Oct. 8	30¼ Mch. 29	21
Hannibal & St. Jo. Pref.	28¾ Oct.	43½ Jan.	34¼	20¼ Oct.	37⅛ March.	27½
Illinois Central	90 Oct.	108½ Feb.	101	90½ Nov.	106½ April	97½
Kansas Pacific	2½ May 9	4½ Feb. 7	2¾	2¾ Jan.	18 July.	14
Lake Shore	67⅞ June 19	84⅝ Jan. 16	80	51¼ Sept. 15	80⅛ Jan. 2	60⅞
Louisville & Nashville	53 Jan.	59 Feb.	40 B	36½ April.	40 Feb.	25
Memphis & Charleston	10 April 11	14 Jan. 31	13 B	7 May.	13 Jan. 2	7
Michigan Central	64½ August.	95½ Jan.	82¾	53 Sept. 27	82¼ Jan. 5	59½

Missouri, Kansas & Texas	10	April.	16½	Feb.	3	3	Jan.	9½	May.	7
Missouri Pacific	29¾	Jan.	48	Nov.	47½	7½	Oct.	55	May.	12
Mobile & Ohio	18	June.	18	June.	12 B	5	March.	12	Jan.	50
New Jersey Southern	2⅞	Nov.	9	Jan.	3	¾	Dec.	10¼	March.	¾
New York Cen. & Hudson River	95⅞	Mch. 19	105⅝	Mch. 11	101¾	100	May 28	107⅜	May 19	105
New York, Lake Erie & Western	26	Dec.	51¼	Jan.	29	12¼	June.	35½	March.	15⅞
New York, Lake Erie & W. Pref	43	Dec.	75	Jan.	45	20	June.	53	Jan.	32
Northern Central	59½	....	77½	....	65½	54	May 30	69	Jan.	68
Ohio & Mississippi	21⅞	June 17	36	Jan. 10	32¼	14¾	Sept. 23	32¾	Jan.	17⅛
Ohio & Mississippi Pref	40	June.	66	Feb.	64	31	Oct.	69	Jan.	35½
Pacific Mail	33⅝	Dec. 21	51½	Sept. 30	36½	30⅞	Feb. 10	45⅞	April 3	39⅛
Philadelphia & Erie	27½	Sept. 19	46	Jan.	32½	32½	Jan. 2	46¼	April	40½
Philadelphia & Reading	107½	Oct. 24	116¾	Mch. 28	109¾	106¼	May 22	114¾	April	111
Pullman Car Co	85	....	100	....	95 B	73	....	98	....	73
Quicksilver	32¾	April 28	36⅛	Nov. 24	33¾	13	May 14	35	Jan. 6	17½
Quicksilver Pref	29	June 29	48	Nov. 27	44	20	July 16	44	Jan. 7	23½
Rome, Watertown & Ogdensburg	72	Jan.	80	May.	77½	50	Oct.	77	Jan.	50
Rutland	4¾	....	9	....	5	2½	....	5	....	2½
Rutland Pref	16	....	50	....	21	12	....	23	....	12
St. Louis, Alton & Terre Haute	7	Nov.	20	Jan.	7 B	5	Dec.	8½	August.	5
St. Louis, Alton & T. H. Pref	14	....	39	....	27	18	July.	27	Jan.	21
St. Louis & Iron Mountain	10	Sept.	70	Jan.	26¾	13	Oct.	27	Jan.	15
St. Louis, Kansas City & N. Pref	20	Nov.	34⅝	Feb.	25	4	Dec.	9¾	May.	22½
Toledo, Wabash & Western	18⅜	Dec.	55¼	Jan.	21¼	2½	Dec.	21⅜	Jan.	3⅛
Toledo, Wabash & Western Pref	30	Dec.	71½	Jan.	30	5	Dec.	32	Jan.	5
Union Pacific	23	June 17	38¾	Mch. 30	37⅛	36	Jan. 18	82¾	Nov. 30	74⅛
Vermont & Canada	37½	....	60¼	....	44	29¾	....	55	....	29¾
Western Union	68	April 24	83⅛	Dec. 10	79⅞	70¾	Feb. 17	84⅞	Aug. 17	74⅜
Canton	55	June.	82¼	Feb.	60	36	Nov.	68½	May.	39¼
Consolidation	39	May.	51	Jan.	44	42	Feb.	50	April.	45
Maryland Coal	15	May.	24¾	Feb.	19	16½	Oct.	19¾	Jan.	18
Spring Mountain Coal	40	Jan.	75½	Nov.	68	60	Dec.	70	May.	62½

TABLE No. 7—RANGE OF PRICES FOR THIRTEEN YEARS.

STOCKS.	Lowest, 1876.	Highest, 1876.	Close.	Lowest, 1877.	Highest, 1877.	Close.
Atchison, Topeka & Santa Fe	9¾	18½	14¾	10¾	16¾	11
Boston, Hartford & Erie	....	....	...	....	....	...
Catawissa	8 Dec.	21¾ Jan.	8⅛	5 April.	10 Oct.	7
Central of New Jersey	20⅞ Sept. 15	109⅞ Feb. 9	37	6 June 11	37¾ Jan. 3	12¾
Central Ohio	30 July.	42½ Feb.	32	20 June.	33½ Jan.	26⅛
Cheshire Pref	32	47	34½	29	39	37
Chicago & Northwestern	31⅞ Sept. 27	45¼ Feb. 16	35¾	15 April 13	43⅞ Oct. 8	35¾
Chicago & Northwest Pref	55⅝ Dec. 16	67½ Feb. 15	56⅛	37¾ April 23	69½ Oct. 8	62⅞
Chicago, Burlington & Quincy	112½ Sept.	121½ Feb.	116⅛	94 Mch. 19	118⅞ Jan. 26	102⅛
Chicago, Milwaukee & St. Paul	18½ Nov. 16	46⅜ Feb. 16	20¼	11 April 12	42⅛ Oct. 8	36⅞
Chicago, Mil. & St. Paul Pref	49⅞ Nov. 16	84⅜ Mch. 13	52½	40⅞ April 23	73¼ Dec. 29	72⅜
Chicago, Rock Island & Pacific	98¼ Oct. 2	111⅝ Feb. 16	99½	82½ April 23	105½ Oct. 8	100½
Cincinnati, Hamilton & Dayton	25 Dec.	57 April.	30	10 Sept.	30 Jan.	10
Cincinnati, Sandusky & Cleveland	4⅝	11⅜	4⅝	1	4⅝	1½
Cleveland, Col., Cin. & Ind	32 Sept.	61½ Jan.	38	19½ April.	49¾ Oct.	39
Col., Chicago & I. C.	2⅛ Dec. 11	6¼ Jan. 28	3	⅞ June.	5½ Oct.	3⅝
Delaware & Hudson	61¼ Oct. 2	125 Jan. 13	70½	25½ June 13	74½ Jan. 4	52½
Delaware, Lackawanna & Western	64½ Oct. 2	120⅜ Jan. 3	73⅛	30½ June 11	77 Jan. 13	51
Dubuque & Sioux City	62 Dec.	77½ March.	62	39½ April.	60 Nov.	60
East Tenn., Virginia & Georgia	40 Nov.	50 May.	40	35 July.	45 Jan.	35
Hannibal & St. Joseph	10½ Aug. 7	22⅝ Jan. 31	13½	7 April 17	15⅞ July 3	12
Hannibal & St. Jo. Pref	18¾ Aug. 23	33½ Jan. 31	27	17 April 17	33⅞ July 3	26
Illinois Central	60⅞ Dec. 28	103¾ Mch. 13	61¾	40½ April 2	79 Oct. 15	74⅜
Kansas Pacific	2 Nov.	14 Jan.	2	1 April.	7¾ Dec.	7¾
Lake Shore	48¾ Sept. 5	68⅝ Jan. 17	55⅛	45 April 23	73½ Oct. 8	61½
Louisville & Nashville	22 B Dec.	31½ Nov.	22 B	26 March.	41 Dec.	41
Memphis & Charleston	4 Dec.	5 Jan.	4	3 August.	6 Sept.	6
Michigan Central	34⅝ Sept. 5	65½ Mch. 15	44⅞	35⅝ April 2	74¼ Oct. 15	62

Missouri, Kansas & Texas	7½	Nov.	13¾	April.	8	3	Dec.	7½	Oct.	3⅝
Missouri Pacific	1½	Sept.	16	April.	3½	1¼	Dec.	3½	Feb.	1⅜
Mobile & Ohio	2	....	5	Jan.	...	½	May.	1	Nov.	1 B
New Jersey Southern	½	August.	2¾	Jan.	⅝	¼	June.	2½	Oct.	1⅛
New York Cen. & Hudson River	96	Sept. 26	117½	Feb. 15	100½	85¼	April 23	109¼	Oct. 8	106½
New York, Lake Erie & Western	7¾	Dec.	23⅜	March.	9½	4⅝	April.	15	Oct.	8¾
New York, Lake Erie & W. Pref.	16	Nov.	39	March.	17½	14½	April.	27	Oct.	22½
Northern Central	44	Dec.	81¼	Feb.	48	26	July.	54	Jan.	32
Ohio & Mississippi	5	Nov. 20	24⅞	Feb. 1	6	2½	July 7	11¾	Oct. 15	8½
Ohio & Mississippi Pref.	8½	Nov.	51	Jan.	10	4	July.	20	Oct.	16
Pacific Mail	16¼	April 10	39⅞	Jan. 17	24	12⅞	April 3	26¼	Aug. 24	23
Philadelphia & Erie	25	Dec.	46	Jan.	26	12	April.	29½	Jan.	18
Philadelphia & Reading	37	Dec.	110	Jan.	39½	20	April.	40½	Jan.	33
Pullman Car Co.	70	....	85½	....	73	65	....	80	....	76
Quicksilver	10½	Nov. 16	20¼	Feb. 25	14	13	July.	24	Oct.	16¼
Quicksilver Pref.	17	Nov.	24¾	Feb.	20	19⅞	April.	45	Oct.	32
Rome, Watertown & Ogdensburg	15 B	Dec.	50	April.	15 B	11	Dec.	11	Dec.	11
Rutland	2	....	3	....	2¼	....	....	....	....	...
Rutland Pref.	5	....	18	....	5½	5½	....	10¾	....	9
St. Louis, Alton & Terre Haute	2¾	Nov.	7½	June.	4½	2½	Feb.	5½	Oct.	4½
St. Louis, Alton & T. H. Pref.	13	August.	24	Jan.	16	12	July.	18	August.	15
St. Louis & Iron Mountain	10	Nov. 16	26½	Mch. 9	14½	5	June.	13	Jan.	7½
St. Louis, Kansas City & N. Pref.	22⅜	Jan. 7	33	Feb. 26	26	20½	June.	28¾	May.	23¾
Toledo, Wabash & Western	¾	June.	8	Nov.	6⅜	....	....	....	....	...
Toledo, Wabash & Western Pref.	3¾	Dec.	10½	Oct.	6⅜	½	June.	20½	Oct.	15½
Union Pacific	57¾	May 25	74½	Jan. 17	60	59¾	Jan. 15	73	Mch. 2	65⅛
Vermont & Canada	17	....	32¾	....	17¼	15	....	23	....	15
Western Union	63⅜	May 1	80½	Jan. 31	70⅞	56	April 4	84⅝	Sept. 5	78⅜
Canton	25	Sept.	44	Feb.	28	14½	August.	28	Jan.	20
Consolidation	30	Oct.	50	Jan.	36	21	August.	38	Jan.	25
Maryland Coal	9	Dec.	18¾	March.	11	8	April.	11¼	Jan.	10
Spring Mountain Coal	53½	June.	65	Feb.	50 B	30 B	June.	50 B	March.	35 B

TABLE No. 7—RANGE OF PRICES FOR THIRTEEN YEARS.

STOCKS.	Lowest, 1878.	Highest, 1878.	Close.	Lowest, 1879.	Highest, 1879.	Close.
Atchison, Topeka & Santa Fe......	8¾	94	83¾	81¾ Jan.	124⅜ Dec.	124¼
Burlington, Cedar Rapids & Nor...	13¼ Jan.	34 March.	23	22 Jan.	75 Sept. 12	57 0
Canada Southern................	39 Nov.	45½ Dec.	45½	45¼ Jan. 3	78½ Nov. 12	66¼
Central of New Jersey...........	13½ Jan. 2	45¼ July 11	33⅛	33½ Jan. 2	89⅞ Nov. 15	80¾
Chicago, Burlington & Quincy.....	99¼ Feb. 28	114¾ July 15	111	111⅛ Jan. 12	134½ Dec. 31	134½
Chicago, Milwaukee & St. Paul....	27½ Sept. 2	54⅞ July 8	36⅞	34⅜ Jan. 4	82⅛ Nov. 13	75⅜
Chicago, Mil. & St. Paul Pref.....	64 Oct. 14	84¾ July 9	76¾	74¾ Jan. 4	102¾ Nov. 13	100½
Chicago & Northwestern..........	32½ August.	55¼ April	50⅝	49⅝ Jan. 3	94½ Nov. 12	90¾
Chicago & Northwest Pref........	59¾ Feb.	79½ July.	78⅛	76⅞ Jan. 3	108 Nov. 12	105¼
Chicago, Rock Island & Pacific....	98⅜ Nov. 15	122 Dec. 31	120¼	119 Jan. 8	150½ Dec. 29	147
Cleveland, Col., Cin. & Ind.......	23 Aug. 9	38¼ Jan.	34½	34¾ Jan. 2	85½ Nov. 13	80
Col., Chicago & I. C.............	2⅛ Feb.	6⅜ Dec.	5⅞	5 Jan. 4	28 Nov. 18	20½
Delaware & Hudson.............	34⅜ Dec. 9	59⅞ July 10	38	38 Jan. 2	89⅛ Nov. 12	74
Delaware, Lackawanna & Western..	41 Dec. 28	61⅞ July 10	42⅞	43 Jan. 2	94 Nov. 12	83⅞
Denver & Rio Grande............	10	22	11¾	13 Feb.	48½ Nov.	48½
Dubuque & Sioux City...........	55 Dec.	69 July.	56	54 April.	61 Jan.	60
Hannibal & St. Joseph...........	10 Feb. 28	16⅞ Nov. 13	13¾	13¼ Jan. 4	41½ Nov. 12	33⅝
Hannibal & St. Jo. Pref..........	21⅝ Feb. 28	41⅜ Nov. 11	34½	34 Jan. 10	70⅛ Nov. 15	63¾
Houston & Texas Central.........	10 B Oct.	15 0 May.	10 B	40 July.	60 Sept.	50
Illinois Central..................	72⅜ Feb. 14	87 July 11	79⅞	79¼ Mch. 26	100¾ Nov. 18	99⅜
Kansas Pacific..................	4 August.	12⅝ Oct.	9½	9⅛ Jan. 21	92½ Dec. 3	86⅞
Lake Shore.....................	55⅞ June 29	71⅝ July 31	68⅝	67 Jan. 6	108 Nov. 28	100
Long Island....................	12 0 Oct. 29	15 0 Jan.	12 0	2 Oct.	10 Nov.	8
Louisville & Nashville...........	35 Oct.	39 Dec.	39	35 Feb. 13	89½ Dec. 10	86½
Memphis & Charleston...........	6 Feb.	5 Oct.	5½	9 Oct.	9 Oct.	9
Michigan Central................	58½ Jan. 3	75 Dec. 31	73¼	73¾ Jan. 2	98 Nov. 28	89¼
Missouri, Kansas & Texas........	2 August.	7⅛ Dec.	6⅜	5⅜ Jan. 4	35¾ Nov. 19	32¼
Missouri Pacific.................	1 July.	1½ Jan.	1	2 Sept.	19¾ Nov.	19¾

Mobile & Ohio	1	March.	4	Sept.	3	7½	August.	27⅛	Nov.	20½
Nashv., Chattanooga & St. Louis	29	Oct.	33½	Sept.	25	35½	May.	83	Nov.	81
New Jersey Southern	1	April.	2¼	Dec.	1⅞	¾	April.	8½	Oct.	6¼
New York Cen. & Hudson River	103¾	Feb. 11	115	Sept. 5	114	112	Mch. 24	139	Nov. 28	129
New York, Lake Erie & Western	7⅝	Jan. 5	22½	Dec. 31	22⅜	21⅛	Jan. 4	49	Nov. 15	42¾
New York, Lake Erie & W. Pref.	22	Jan.	38	Dec.	37	37½	Jan. 2	78⅛	Nov. 15	72
Northern Central	26	Dec.	33	Jan.	26½	26	Jan.	70½	Nov.	65
Northern Pacific	1½	Feb.	6½	Dec.	5	16	Aug. 9	40½	Oct. 21	32⅝
Northern Pacific Pref.	11	Jan.	27⅜	Dec.	27⅜	44¼	Aug. 30	65	Oct. 21	55½
Ohio & Mississippi	6¾	June 29	11¼	April 15	7¾	7¾	Jan. 4	33⅜	Nov. 15	28¾
Ohio & Mississippi Pref.	12	June.	20	April.	19¾	19	Jan.	64½	Nov.	58
Pacific Mail	12½	Dec. 7	23⅞	Jan. 16	13⅞	10⅜	Jan. 13	39½	Nov. 1	37¼
Philadelphia & Erie	13	Oct.	20	Jan.	13¾	14	Jan.	37¾	Dec.	34
Philadelphia & Reading	22¾	Dec.	39½	July.	24	23	Jan.	78	Nov.	71¾
Pullman Car Co.	69½	August.	80	July.	74½	73½	Jan.	109¾	....	107
Quicksilver	9¼	Nov. 11	19¾	Feb. 25	11	11	March.	25½	Nov.	19¾
Quicksilver Pref.	29¾	Feb. 5	37	June 15	32	32	Jan.	69	Nov.	62½
Richmond & Danville	2	Jan.	5	Oct.	4	3½	Jan.	30	Dec.	30
St. Louis, Alton & Terre Haute	1	Sept.	4⅝	Dec.	2 B	1½	Jan.	24½	Nov.	17½
St. Louis, Alton & T. H. Pref.	5	June.	17¾	Jan.	6 B	9	Feb.	64	Nov.	42½
St. Louis, I. M. & Southern	5	Feb.	15⅝	Nov.	13	13	Jan.	56	Nov.	49
St. Louis, Kansas City & Northern	3½	July.	7⅝	Nov.	7½	7	Jan.	47⅜	Nov.	...
St. Louis, Kansas City & N. Pref.	19	March.	26½	Dec.	25½	25½	Jan.	72⅜	Nov.	...
St. Louis & San Francisco	1½	Sept.	4⅛	Dec.	3⅞	3⅛	Jan. 8	53	Nov. 15	41
St. Louis & San Francisco Pref.	1½	July.	5¼	Dec.	5¼	4⅛	Jan. 21	60½	Nov. 15	49½
St. Louis & San Francisco 1st Pref.	5½	Sept.	11¾	Dec.	11¾	9¾	Jan. 23	78½	Nov. 15	69
Union Pacific	61¼	July 31	73	Mch. 20	66⅜	57½	Jan. 31	95	Oct. 20	85⅛
Vermont & Canada	10	....	16½	....	10	12	Jan.	24½	Nov.	16
Wabash, St. Louis & Pacific	12⅛	June 26	23⅞	Nov. 11	21⅞	17¾	March.	62¾	Nov.	53⅜
Western Union	75¼	Feb. 13	102	Oct. 31	95⅞	88⅝	August.	114⅝	May.	102⅜
Canton	14⅞	April.	23	Dec.	23	24½	Jan.	70	Nov.	60
Consolidation	23	Dec.	25	Feb.	23	20	Jan.	41	Oct.	33

TABLE No. 7—RANGE OF PRICES FOR THIRTEEN YEARS.

STOCKS.	Lowest, 1880.	Highest, 1880.	Close.	Lowest, 1881.	Highest, 1881.	Close.
Atchison, Topeka & Santa Fe......	113¾ July.	152½ Dec.	152½	92 Dec.	154¼ Jan.	94¾
Burlington, Cedar Rapids & Nor...	50 May.	80⅛ March.	75	69 Feb. 24	90 May 26	81¾
Canada Southern................	40 May 17	81⅜ Dec. 20	74	50 Dec. 27	90 Jan. 14	52¾
Central of New Jersey............	45 May 25	90¼ Mch. 8	84¾	82½ Jan. 4	112 Feb. 17	91⅛
Chesapeake & Ohio 1st Pref.......	22 Sept.	36¼ Dec.	34½	32¾ Jan. 12	48¼ May 14	36
Chicago, Burlington & Quincy.....	113 June 2	183½ Dec. 27	179¾	133½ Dec. 27	182½ Jan. 17	136⅛
Chicago, Milwaukee & St. Paul....	66½ May 25	114¾ Dec. 31	114½	101½ Feb. 25	129¼ June 6	106½
Chicago, Mil. & St. Paul Pref.....	99 May 10	124⅛ Dec. 31	124	115¾ Oct. 12	140 May 26	119½
Chicago & Northwestern..........	87⅛ July 9	130 Nov. 29	127¾	117 Feb. 25	136 Jan. 19	125½
Chicago & Northwest Pref........	104 Feb. 10	146½ Nov. 24	141	131⅛ Feb. 26	147½ Jan. 17	138½
Chicago, Rock Island & Pacific....	100½ June 11	204 June 8	138¼	129 Feb. 26	148⅝ May 21	132½
Chicago, St. Paul, M. & Omaha....	36 July.	51 Dec.	48⅛	33½ Dec. 23	51 Jan. 22	36
Chicago, St. Paul, M. & O. Pref...	69 July.	101⅜ Dec.	98¼	91 Feb. 25	109½ Jan. 24	99¾
Cleveland, Col., Cin. & Ind.......	61 May.	96½ Dec.	96	81 Feb. 25	101¾ May 23	83¼
Col., Chicago & I. C.............	9½ May 11	25⅛ Jan. 26	21⅛	18¾ Aug. 20	32⅞ May 20	21¼
Delaware & Hudson.............	60 May 25	92¾ Dec. 18	92¼	85⅝ Jan. 4	115¼ Mch. 7	107⅞
Delaware, Lackawanna & Western..	68½ May 25	110¼ Dec. 30	109½	107 Jan. 4	131 Mch. 9	127⅛
Denver & Rio Grande...........	61½ July.	86½ Dec.	86½	66 Dec. 17	113¼ June 7	69½
Dubuque & Sioux City...........	60 Jan.	83 Dec.	83	76½ April 8	88 June 14	83
Hannibal & St. Joseph...........	22⅞ May 25	50⅞ Dec. 27	48⅛	44¾ Jan. 4	350 Sept. 16	95
Hannibal & St. Jo. Pref..........	63½ May 25	105 Dec. 24	103½	94 Feb. 26	121 Sept. 17	113¾
Houston & Texas Central.........	49¾ May.	91½ March.	73	63 Feb. 26	106 June 18	88
Illinois Central..................	99½ Jan. 2	127⅜ Dec. 31	127⅜	104 Jan. 4	146½ May 21	130½
Indiana, Bloomington & Western..	25 May.	52 Dec.	51½	38½ Aug. 18	57½ May 19	48
Lake Shore.....................	95 June 2	139⅝ Dec. 30	134½	112⅝ Dec. 31	135¾ Jan. 20	112¾
Long Island....................	10 Nov.	25 Nov.	24	44 June 4	63 June 20	50
Louisville & Nashville...........	77 Dec. 8	174 Nov. 8	89	79 Feb. 25	110½ May 18	101⅜
Memphis & Charleston...........	29⅛ June.	43 Dec.	43	41 Feb. 18	93 June 13	72½

Michigan Central	75	May 17	130⅛	Dec. 30	125	84¾	Dec. 27	126½	Jan. 20	86
Missouri, Kansas & Texas	28⅛	May 25	49¼	Jan. 27	44⅝	34⅞	Dec. 27	54	May 21	36½
Mobile & Ohio	12	May.	29¼	March.	21¾	18¼	Feb. 26	39¾	June 23	35½
Nashv., Chattanooga & St. Louis	47½	June 1	128	Mch. 5	75	63	Jan. 6	102	Mch. 21	87½
New York Cen. & Hudson River	122	May 11	155⅜	Dec. 31	154⅜	130¼	Dec. 31	155	Jan. 3	131
New York, Lake Erie & Western	30	June 1	51⅛	Dec. 27	50⅝	39¾	Dec. 27	52⅞	Jan. 15	40¾
New York, Lake Erie & W. Pref	47	May 25	93½	Dec. 27	90¼	80½	July 27	96½	Nov. 29	89¾
Northern Central	60	May.	94	Dec.	90½	89	Jan.	115½	June.	102
Northern Pacific	20	May 11	36	Jan. 14	34	32¾	Jan. 13	51	Mch. 17	36½
Northern Pacific Pref	39⅜	May 24	67½	Dec. 28	66⅝	64⅛	Jan. 25	88⅛	June 24	75⅝
Ohio & Mississippi	23	May 25	44½	Mch. 6	38¼	35	Dec. 23	60	Sept. 9	36⅜
Ohio & Mississippi Pref	57¾	Jan.	102	Dec.	96 B	97¾	Jan. 8	126	May 21	104
Pacific Mail	27½	May 17	62	Mch. 8	45¾	39	Dec. 23	62¼	Feb. 18	41
Philadelphia & Erie	29¼	June.	44	Nov.	41½	38¾	Dec.	59½	March.	40 0
Philadelphia & Reading	13½	July 2	72⅜	Jan. 3	51½	50	Feb. 25	74¾	Oct. 4	67⅛
Pullman Car Co	107½	Jan.	146	Dec.	146	120	Dec. 21	151	Jan. 3	132½
Quicksilver	9	May.	24¼	Jan.	13	12	Dec. 23	21¼	July 7	13
Quicksilver Pref	45	Dec.	78½	March.	52	53	Jan. 5	75½	July 7	59
Richmond & Danville	50	Jan.	89¼	Dec.	86	99½	Oct. 20	171	Dec. 29	170
St. Louis, Alton & Terre Haute	15	May.	42	Dec.	40½	39	Feb. 28	77½	May 12	47
St. Louis, Alton & T. H. Pref	42½	Jan.	112	Dec.	111¾	85	Dec. 28	143¾	May 25	85¼
St. Louis, I. M. & Southern	34½	May.	66	Feb.	54¾	....	....	....	....	...
St. Louis & San Francisco	25¼	May 11	48	Feb. 2	45	39	Mch. 24	55	June 14	41
St. Louis & San Francisco Pref	33	May 11	65	Dec. 17	62¾	55	Dec. 23	81¼	June 3	60½
St. Louis & San Francisco 1st Pref	60	May 11	100	Dec. 30	99	99	Feb. 25	115½	June 29	104½
Union Pacific	80	May 11	113¾	Dec. 28	112⅜	105½	Feb. 25	131¾	July 2	116⅝
Vermont & Canada	9	Dec.	25	Oct.	10½	11¼	Jan.	20	July 1	15
Wabash, St. Louis & Pacific	26½	May 25	48	Jan. 27	45¼	33¼	Dec. 27	60	June 30	37
Wabash, St. Louis & Pacific Pref	51¼	May 25	88⅜	Dec. 28	86⅝	64¼	Dec. 27	96¼	May 16	68⅜
Western Union	77½	Dec. 17	116½	Feb. 24	81⅛	77	April 19	94	June 20	79¾
Canton	40	Oct.	63	Feb.	52	53	Jan.	73¼	June.	61
Consolidation	28	July.	39¾	Nov.	36	30	Oct. 15	43	Jan. 15	39¾

TABLE No. 7—RANGE OF PRICES FOR THIRTEEN YEARS.

STOCKS.	Lowest, 1881.	Highest, 1881.	Close.	Lowest, 1882.	Highest, 1882.	Close.
Burlington, Cedar Rapids & Nor.	69 Feb. 24	90 May 26	81¾	67 June 10	85⅛ Feb. 2	82¾
Canada Southern	50 Dec. 27	90 Jan. 14	52¾	44 Feb. 23	73 Nov. 13	67
Central of New Jersey	82½ Jan. 4	112 Feb. 17	91⅛	63¼ Nov. 22	97½ Feb. 20	69½
Central Pacific	80½ Feb. 25	102⅞ June 18	92	82⅜ Nov. 22	97⅛ July 28	86⅜
Chesapeake & Ohio 1st Pref.	32¾ Jan. 12	48¼ May 14	36	27¼ April 18	41½ Sept. 15	33½
Chicago, Burlington & Quincy	133½ Dec. 27	182½ Jan. 17	136⅛	120½ Nov. 25	141 Aug. 9	122
Chicago, Milwaukee & St. Paul	101½ Feb. 25	129¼ June 6	106½	96½ Nov. 25	128¼ Sept. 9	105½
Chicago, Mil. & St. Paul Pref.	115¾ Oct. 12	140 May 26	119½	114½ Nov. 25	144¼ Sept. 8	120¾
Chicago & Northwestern	117 Feb. 25	136 Jan. 19	125½	124 Jan. 4	150¾ Sept. 12	135
Chicago & Northwest Pref.	131⅛ Feb. 26	147½ Jan. 17	138½	136 April 10	175 Aug. 16	150½
Chicago, Rock Island & Pacific	129 Feb. 26	148⅝ May 21	132½	122 Nov. 24	140¼ Aug. 11	125½
Chicago, St. Paul, M. & Omaha	33½ Dec. 23	51 Jan. 22	36	29¾ Feb. 23	58¼ Dec. 14	52⅜
Chicago, St. Paul, M. & O. Pref.	91 Feb. 25	109½ Jan. 24	99¾	97½ Feb. 24	117 Dec. 14	113½
Cleveland, Col., Cin. & Ind.	81 Feb. 25	101¾ May 23	83¼	65½ June 7	92¾ July 24	80
Delaware & Hudson	85⅝ Jan. 4	115¼ Mch. 7	107⅞	102¾ Mch. 13	119¾ Aug. 15	108
Delaware, Lackawanna & Western	107 Jan. 4	131 Mch. 9	127⅛	116¼ April 24	150¼ Sept. 12	128
Denver & Rio Grande	66 Dec. 17	113¼ June 7	69½	38¼ Nov. 22	74⅝ Jan. 20	41⅛
Houston & Texas Central	63 Feb. 26	106 June 18	88	61 Mch. 11	92½ July 25	76
Illinois Central	104 Jan. 4	146½ May 21	130½	127¾ Jan. 4	150½ Oct. 18	142¼
Indiana, Bloomington & Western	38½ Aug. 18	57½ May 19	48	30 Nov. 21	49½ Sept. 15	33¾
Lake Erie & Western	32 Dec. 27	65¾ June 2	34¼	23½ June 12	45 July 26	30¾
Lake Shore	112⅝ Dec. 31	135¾ Jan. 20	112¾	98 June 6	120⅛ Mch. 30	113
Long Island	44 June 4	63 June 20	50	49½ Feb. 24	65 Sept. 15	59¾
Louisville & Nashville	79 Feb. 25	110½ May 18	101⅜	46½ Nov. 9	100¾ Jan. 3	53
Memphis & Charleston	41 Feb. 18	93 June 13	72½	42¼ Nov. 25	82⅜ Jan. 18	45
Michigan Central	84¾ Dec. 27	126½ Jan. 20	86	77 April 18	105 Sept. 23	98
Missouri, Kansas & Texas	34⅞ Dec. 27	54 May 21	36½	26⅜ Mch. 11	42½ Aug. 2	32½
Missouri Pacific	85 Jan. 28	114½ June 14	101	86⅝ April 21	112½ Sept. 12	101¾

Mobile & Ohio	18¼	Feb. 26	39¾	June 23	35½	12	June 6	35¾	Jan. 21	18½
Nashv., Chattanooga & St. Louis	63	Jan. 6	102	Mch. 21	87½	47	Nov. 22	87½	Jan. 14	57½
New York Cen. & Hudson River	130¼	Dec. 31	155	Jan. 3	131	123⅝	May 1	138	Aug. 4	126
New York, Lake Erie & Western	39¾	Dec. 27	52⅞	Jan. 15	40¾	33¼	June 7	43¾	Oct. 10	38⅞
New York, Lake Erie & W. Pref.	80½	July 27	96½	Nov. 29	89¾	67	Mch. 8	88¼	Dec. 19	86¼
New York, L. E. & W. Seconds	94½	Feb.	108¾	May.	100	87¾	June.	100½	Oct.	96
New York, Ontario & Western	25⅝	Dec. 27	43½	Feb. 2	27½	20½	June 19	31⅞	July 28	26
Norfolk & W. Pref.	53	Aug. 26	70	May 26	57¾	44¼	Mch. 18	60	Sept. 12	48
Northern Pacific	32¾	Jan. 13	51	Mch. 17	36½	28¾	Mch. 9	54⅜	Sept. 13	47⅛
Northern Pacific Pref.	64⅛	Jan. 25	88⅛	June 24	75⅝	66¾	Feb. 23	100⅜	Sept. 14	85
Ohio Central	21	Dec. 21	37⅞	May 21	23⅜	11⅜	June 7	25⅝	Jan. 14	13¼
Ohio & Mississippi	35	Dec. 23	60	Sept. 9	36⅜	27	Feb. 23	42	July 18	32½
Ohio & Mississippi Pref.	97¾	Jan. 8	126	May 21	104	90¾	March.	112	August.	107½
Oregon & Transcontinental	64	Dec. 23	83	Dec. 16	75¾	60	Jan. 30	98¾	Sept. 25	84⅜
Oregon Railway & Navigation	134	Dec. 31	190	Feb. 21	134	128	Jan. 31	163⅛	Sept. 25	138
Pacific Mail	39	Dec. 23	62¼	Feb. 18	41	32¾	Nov. 24	48¾	July 11	41½
Philadelphia & Reading	50	Feb. 25	74¾	Oct. 4	67⅛	46¾	Nov. 22	67½	Jan. 7	53⅛
Pullman Car Co.	120	Dec. 21	151	Jan. 3	132½	117	June 5	145	Jan. 18	123¼
Richmond & Allegheny	35	Oct. 10	80	June 23	41	13	Dec. 19	40	Jan. 5	16
Richmond & Danville	99½	Oct. 20	171	Dec. 29	170	52	Nov. 21	250	Feb. 7	56
Richmond & West Point	122	Nov. 28	174½	Dec. 31	174½	23	Nov. 24	263	Feb. 15	25
Rochester & Pittsburg	22	Dec. 23	50	June 18	25½	17½	Nov. 22	36½	Mch. 22	20½
St. Louis, Alton & Terre Haute	39	Feb. 28	77½	May 12	47	20½	Mch. 8	50	Sept. 14	47
St. Louis & San Francisco	39	Mch. 24	55	June 14	41	31	Nov. 24	46⅞	Jan. 25	35¼
St. Louis & San Francisco Pref.	55	Dec. 23	81¼	June 3	60½	43	Mch. 8	66½	Jan. 26	52¼
St. Louis & San Francisco 1st Pref.	99	Feb. 25	115½	June 29	104½	79¾	Feb. 24	106½	Jan. 17	100
St. Paul, Minn. & Man.	88½	Jan. 7	113¾	Nov. 12	112½	108½	Jan. 26	166½	Sept. 12	143
Texas & Pacific	41½	Jan. 4	73⅝	June 14	48½	34	Nov. 24	55	July 28	39¾
Union Pacific	105½	Feb. 25	131¾	July 2	116⅝	98¼	Dec. 11	119¾	Jan. 16	102⅜
Wabash, St. Louis & Pacific	33¼	Dec. 27	60	June 30	37	23⅝	June 10	39⅞	Aug. 2	34⅞
Wabash, St. Louis & Pacific Pref.	64¼	Dec. 27	96¼	May 16	68⅜	45⅞	June 9	71⅝	Jan. 14	54
Western Union	77	April 19	94	June 20	79¾	76⅛	Mch. 11	83⅜	Sept. 15	81¼

TABLE No 7—RANGE OF PRICES FOR THIRTEEN YEARS.

STOCKS.	Lowest, 1883.	Highest, 1883.	Close.	Lowest, 1884.	Highest, 1884.	Close.
Burlington, Cedar Rapids & Nor...	75 Sept. 24	86 Nov. 13	83	50 June 28	80 Jan. 10	50¼
Canada Southern..................	47¼ Oct. 17	71¾ Jan. 19	50	24¾ June 27	57⅞ Feb. 11	29
Central of New Jersey............	68¼ Jan. 3	90 Oct. 18	84	37½ Dec. 27	90 Jan. 11	39⅛
Central Pacific..................	61 Oct. 16	88 Jan. 5	63⅝	30 June 30	67¾ Jan. 10	34
Chesapeake & Ohio 1st Pref.......	23 Aug. 14	35½ Jan. 20	24	9½ June 20	28 Feb. 11	9⅞
Chicago, Burlington & Quincy.....	115¾ Feb. 20	129⅜ April 13	120¼	107 June 27	127¾ Feb. 16	115⅛
Chicago, Milwaukee & St. Paul....	91¾ Dec. 26	108½ Jan. 20	92⅝	58¼ June 27	94¼ Jan. 3	71⅛
Chicago, Mil. & St. Paul Pref.....	115 Oct. 17	122¼ Sept. 7	116½	95⅞ June 27	119 Feb. 16	103¼
Chicago & Northwestern..........	115¼ Dec. 12	140⅛ April 13	116½	81½ June 23	124 Feb. 12	84⅛
Chicago & Northwest Pref........	134 Oct. 17	157 April 13	144¾	117 June 23	149½ Feb. 12	119½
Chicago, Rock Island & Pacific....	116½ Dec. 31	127¼ Jan. 5	116½	100¼ June 23	126¾ Feb. 11	105
Chicago, St. Paul, M. & Omaha...	30 Oct. 17	55 Jan. 18	33⅜	21⅞ June 26	38⅛ Aug. 20	23⅞
Chicago, St. Paul, M. & O. Pref...	91 Oct. 17	113¼ Jan. 5	92½	80¾ June 27	100 Aug. 20	82¼
Cleveland, Col., Cin. & Ind.......	54 Oct. 3	84 Jan. 5	65	28 June 27	69½ Mch. 14	31⅜
Delaware & Hudson..............	102½ Oct. 17	112⅛ April 14	105½	67 Dec. 31	114 Feb. 11	68
Delaware, Lackawanna & Western..	111½ Oct. 17	131½ April 3	116¾	86¾ Dec. 31	133⅛ Mch. 1	87½
Denver & Rio Grande.............	21¼ Aug. 21	51½ May 3	24¾	6⅜ June 23	25⅝ Jan. 3	8½
Houston & Texas Central.........	50 Nov. 2	82½ April 5	50½	20 June 26	51 Jan. 4	32½
Illinois Central..................	124 Aug. 14	148 June 14	132	110 June 23	140 Feb. 13	117
Indiana, Bloomington & Western..	17½ Dec. 26	35½ April 9	17¾	9 June 21	20¼ Jan. 5	12
Lake Erie & Western.............	13½ Oct. 16	33¼ Jan. 18	18½	6⅞ June 27	19¾ Jan. 7	8¾
Lake Shore......................	92¾ Oct. 18	114⅞ Jan. 18	94⅞	59½ Dec. 27	104¾ Mch. 4	61⅝
Long Island......................	58 Oct. 17	86¾ June 30	66	62 May 24	78¼ Mch. 15	62½
Louisville & Nashville...........	40⅝ Aug. 27	58½ Jan. 20	44⅜	22½ June 24	51⅜ Mch. 4	25¼
Memphis & Charleston............	32 Dec. 31	55 Jan. 8	32	23 June 27	40 Jan. 11	29
Michigan Central.................	77 Oct. 17	100⅛ Jan. 19	85½	51¾ June 27	94½ Mch. 4	55
Missouri, Kansas & Texas........	19½ Oct. 17	34⅞ Jan. 18	21¾	9½ June 27	23¼ Jan. 5	15½
Missouri Pacific..................	86 Dec. 31	106⅞ April 9	87½	63½ May 20	100 June 21	90⅝

Mobile & Ohio..................	10	Oct. 16	19½	Jan. 5	10⅛	6¼	June 20	13¾	Mch. 24	7¼
Nashv., Chattanooga & St. Louis..	50½	May 17	64⅞	Jan. 22	54	30	June 26	58	Mch. 14	36
New York Cen. & Hudson River..	111½	Dec. 31	129⅛	Mch. 10	112	83½	Nov. 7	122	Mch. 13	86⅛
New York, Lake Erie & Western...	26⅞	Dec. 31	40⅞	Jan. 18	26⅞	11⅛	June 27	28⅜	Jan. 5	14⅛
New York, Lake Erie & W. Pref...	72	Aug. 13	83	Jan. 5	77⅛	20	June 27	71	Mch. 3	28
New York, L. E. & W. Seconds...	89	August.	100	May.	88	45½	Feb.	94¾	Feb.	57
New York, Ontario & Western.....	15⅝	Dec. 19	29⅜	April 14	16⅜	7	June 27	16½	Jan. 7	12
Norfolk & W. Pref..............	32	Aug. 14	49¾	Jan. 20	40	17	Nov. 25	42	Feb. 15	21
Northern Pacific................	23⅛	Oct. 17	53⅛	June 14	24¼	14	June 27	27	Jan. 7	16¼
Northern Pacific Pref............	49¾	Dec. 17	90⅝	June 14	51⅜	37¼	June 27	57⅝	Jan. 7	39¾
Ohio Central....................	2	Oct. 3	14¼	April 13	2½	1	Dec. 19	4½	Sept. 5	1½
Ohio & Mississippi..............	21	Dec. 26	36¾	April 13	23	14⅝	Mch. 14	25⅞	Mch. 17	17¾
Ohio & Mississippi Pref...........	96	Feb.	112½	June	112½	45	May.	90	Jan.	...
Oregon & Transcontinental........	29½	Dec. 31	89	Jan. 19	30¼	6¼	June 26	34⅝	Jan. 7	13¾
Oregon Railway & Navigation.....	90	Dec. 28	150	June 14	93½	60¾	June 26	112	Jan. 28	69½
Pacific Mail.................. ..	28	Aug. 14	44¾	April 9	41	31	May 16	57⅛	Dec. 20	55¼
Philadelphia & Reading...........	46¼	Aug. 27	61⅛	June 15	55⅛	16⅞	Dec. 26	60⅝	Feb. 23	18
Pullman Car Co..................	112¼	Dec. 24	134	June 13	115	90	May 24	117	Jan. 7	106
Richmond & Allegheny...........	4	Dec. 17	15½	April 16	4½	2⅛	May 24	5	Jan. 11	2⅛
Richmond & Danville.............	47	Jan. 13	72	July 23	57	32	July 3	61	Feb. 14	45
Richmond & West Point..........	21	Feb. 16	39	June 2	28	12	June 26	32	Feb. 15	19
Rochester & Pittsburg........	14	Aug. 11	23	April 4	14½	1⅞	July 24	16⅛	Feb. 4	3
St. Louis, Alton & Terre Haute....	35	Oct. 16	85	June 9	44	18	June 27	50	Mch. 17	22
St. Louis & San Francisco.........	20½	Oct. 17	36¼	May 31	26	11½	June 26	29½	Aug. 22	20½
St. Louis & San Francisco Pref....	40	Dec. 31	59½	June 2	40	24½	June 30	50	Mch. 18	38½
St. Louis & San Francisco 1st Pref.	87	Oct. 18	100½	Jan. 11	87⅝	70	May 15	96½	April 10	83
St. Paul, Minn. & Man...........	94	Dec. 26	169½	April 16	94¼	76⅛	Oct. 20	99	Jan. 7	79
Texas & Pacific..................	17⅛	Dec. 31	43	Jan. 18	17⅛	5½	June 27	22⅜	Feb. 11	12⅝
Union Pacific...................	70	Dec. 31	104¾	Jan. 18	71½	28	June 30	84⅝	Feb. 16	46
Wabash, St. Louis & Pacific.......	15	Aug. 14	36¼	Jan. 18	17½	4	June 27	19¾	Jan. 7	5
Wabash, St. Louis & Pacific Pref..	29⅛	Dec. 31	57½	Jan. 18	29⅜	9	May 20	32	Jan. 5	13
Western Union.................	71¾	Aug. 16	88¼	June 14	74	49	May 14	78⅛	Feb. 16	54

COURSE OF THE MARKET, 1872

STOCKS.	Jan. 1.	Feb. 1	Mar. 1.	Apl. 1.	May 1.	June 1	July 1.	Aug. 1	Sept. 1	Oct. 1.	Nov. 1	Dec. 1	Close.
B., H. & Erie	3¼	4¼	3½	9⅞	9¼	8⅛	8⅛	7½	7	7⅛	8	7⅞	8¾
Catawissa	32	36	32	30	36	33	33	33	22	21	21⅜	19	19
Central of N. J.	109¼	112	111⅛	110¾	110	108½	107¼	108	106½	100	103½	103¼	102½
Central Ohio	28	29½	30	30 0	31	33	33	34	34½	34½	35½	36	36
Cheshire pref.	85	84	83¾	82	82½	83½	....	....	76	77½	81 0	80	79
Chicago & Northw'n.	69	73⅛	76½	85¼	80½	74½	73	75⅛	74½	70⅞	83¾	86½	82½
Chicago & N. pref.	92½	92	90¾	96⅞	94½	94¼	90⅝	91⅜	90⅝	86½	88¼	90½	88½
Chicago, Bur. & Q.	128¼	143	137	134	133	130	131⅛	132½	130	133¾	135	137	138½
Chic., M. & St. P.	55¾	55¼	56½	64½	61½	57⅜	53⅝	56½	55⅞	54	56	54¼	54
C., M. & St. P. pref.	80½	74½	77⅝	81¾	80½	78¾	78½	79⅛	76¼	74⅝	75¾	76¾	77¼
Chic. & Rock Island.	107⅞	110⅜	111¼	118⅛	115⅝	110¾	111	112⅛	110¼	110⅝	109	111⅜	111⅛
Cincinnati, H. & D.	90	93	92½	91	91½	93	93	93	92½	92½	89	88	89
C. S. & Cleveland	20	23⅛	23	23¾	21¾	23½	22	22⅞	20½	19	19⅜	17½	18¾
C., C. & I. C.	20	22¼	22¼	27	39½	38	35⅜	36¼	35½	34¾	36⅛	33¾	36⅜
C., C., C. & I.	90	88	88⅛	91½	91½	92½	95	90½	90	89	90	90	93½
Del. & Hudson	123	119½	120	119	120½	120	121½	118½	119	117	117	117½	120
Del., Lack. & W.	104½	103	105¼	109¼	108½	107	105½	103½	103	97	97½	96	92¾
Dubuque & S. C.	70	70	74	70	70	70½	60½	70	67	68 0	62	....	70
E. Tenn., Va. & Ga.	60	55	55	55	55	55	55	55	55	53	53	53	53
Han. & St. Jo.	55	47¾	37¾	47¾	44	40	40½	39	38	33	33	34	47½
Han. & St. Jo. pref.	67	67	56½	67	62	60	61	57	54½	50	50½	51½	70
Illinois Central	130	130	133	133	135	137¾	137	133	133	128½	122½	127¼	125
Kansas Pacific	13	13½	14	13½	13	13¾	13¼	13	12	13¼	11½	11½	11⅛
Lake Shore	94	90¼	91⅝	98	97¼	95¾	96⅞	92⅜	89⅞	87⅝	92¾	94⅝	95⅞
Louisville & Nash.	73	71	71	71¼	74½	76	79⅝	75½	80	80⅝	80	79	79
Mar. & C. 1st	20	22	22	23¼	30	27½	28	29 0	26½	25	27	27	....
Mem. & Charleston	42	38	35	34	35	35	35	30	30	30	27	30	24
Michigan Central	115	118½	118¾	115½	115¾	120	115	116½	115	115	114¾	116	115

Mo., Kan. & Tex....	....	....	....	....	....	35	41¾	42	41¾	41½	42½	41	42
Missouri Pacific.....	72½	72½	72½	89	90	92	105	106	105	106	60	55	56
Mobile & Ohio......	30	30	30	40	42	40	41	48	52	52	45	40	45
N. J. Southern......	....	....	18	25	26	28¼	25	24	20	20	27¼	26⅝	25½
N. Y. Central.......	95¾	97¼	97¼	101⅞	99⅞	97½	97⅝	98	99⅛	92⅞	95⅛	95¾	100¼
N. Y., L. E. & W...	34	30⅜	32⅝	68	68½	63⅜	56⅝	49¾	48¾	47¾	53¼	52⅜	60⅝
N.Y., L. E. & W. pf.	64¼	62	60	83½	82	84½	80	73	71¼	70¼	74	73¾	77½
Northern Central....	76½	79	78	78	81	76¾	79½	78½	78	78	78	75	76
Ohio & Miss.........	46¼	45⅜	43⅞	51½	50½	47⅜	46½	45⅝	44⅜	42⅝	47⅜	46⅞	48½
Ohio & Miss. pref...	75	75	74	78	78⅞	74½	74½	74¾	75¼	74½	76	74	74
Pacific Mail.........	53⅝	56⅝	60⅜	64⅞	77	75½	73¼	76¼	74½	74	95¼	85	73⅛
Phil. & Erie.........	45½	52½	52½	58	56	56¼	55½	55	54	53	52	53½	54¾
Phil. & Reading.....	112	114¾	112⅞	117⅜	118¼	120	122½	116¾	116	111¾	115¾	116½	113½
Pullman Car Co.....	106	....	....	115	115	....	....	....	109¾	107	110	107	110
Quicksilver.........	26¼	27⅞	36	41½	43⅜	34¾	41⅞	42⅝	42½	43¼	47	47¼	46½
Quicksilver pref.....	31	33½	39½	53½	54¾	46	53	51	51½	54	57½	56¼	53
Rome, W. & O......	97½	100½	99	95	95	98	94	95	93	94	....	....	94
Rutland............	24	17	18	17	16½	....	12	13	9	7½	13	13	13
Rutland pref........	79	60	60	62	62½	63½	61¼	62	60¼	53	60	54	58
St. L., A. & T. H...	22	25	25	25	24	22	22	....	25 0	10 B	20 0	20 0	22
St. L., A. & T. H. pf.	55	56	60	55	55	48	45	45	50 0	49 0	47 0	49 0	44
St. Louis & I. M....	59	65¼	76	91	102½	102½	100	100	95	94	90	92	94
St. L., K. C. & N. pf.	....	....	....	....	77½	77¼	74	71⅛	70	69¾	68	65	65
Tol., W. & W......	72⅜	75⅛	75⅜	79¾	78	75⅞	75¼	76	74¼	69½	71¼	70	75¼
Tol., W. & W. pref..	87½	87	87	....	89	87	87	....	....	88½	90	....	90
Union Pacific.......	29⅝	37½	34⅜	41⅜	40½	39¼	38⅞	37¾	36	38⅝	38½	37½	37⅝
Vermont & Canada..	98½	100 0	99¾	98	99½	95¼	93½	90	87½	60	76	76	60
Western Union.....	70¾	71	69	75½	77	75½	75⅛	75	72½	69⅜	78½	77¼	80⅞
Canton............	76	81¾	83½	94¼	92	93¾	98	91	92	93½	105	105¾	102½
Consolidation.......	39½	39	36½	42	43	45¼	44½	43¾	42¾	41¼	46	47½	47⅛
Maryland...........	24½	22	20	23	22½	20	19	18	15	20	22	22	21
Spring Mountain....	67	67	62	60	55	52½	50	50	50	55	60	60	60

COURSE OF THE MARKET, 1873.

STOCKS.	Op'ng.	Feb. 1	Mar. 1.	Apl. 1.	May 1.	June 1	July 1.	Aug. 1	Sept. 1	Oct. 1.	Nov. 7	Dec. 1	Close.
Atlantic & Pac. pref..	29	37	23	25	22½	24½	20	26¼	26	16	....	13¾	12
Boston, H. & E.....	8¾	9⅜	8¾	4¼	3⅛	2¼	2½	2¾	2⅝	1⅞	1½	1¾	3¼
Catawissa..........	19	21½	21	19½	21	22	19	19½	19	13	10	15	17
Cheshire pref.......	81¾	77	76 o	80	75½	78	78	77½	....	....	65	70	73
Central of N. J......	102½	105	103¼	102¼	102	105½	105¾	103	101½	92	85½	96	102
Central Ohio........	36	36	37	41½	42	41½	40	37	40	39	33	35¼	35
Chicago, B. & Q....	138½	119½	111¾	111	109½	103¾	102¾	106	98½	90½	76 B	95	95¾
Chicago, M. & St. P.	54	53½	53⅛	58	57¾	54¾	50⅞	53	50¾	35	22	35¼	41½
C., M. & St. P. pref.	77⅜	78⅝	73⅝	74 ½	72½	73	72½	73⅝	70½	58	43¾	58½	66¼
Chicago & N.W.....	82½	83	81	77	80¼	74	71½	69¼	64½	43¾	34¼	49	57⅛
Chicago & N.W. pref.	88½	91¼	89½	86½	85½	85	80¾	83⅜	81¼	65	53½	70	69½
Chicago & R. I......	111¾	113½	113½	113½	108	109¼	109⅛	110½	108¾	90½	84⅛	93⅜	100⅝
Cincinnati, H. & D..	89	89	89	93	90	90	90	90	90	85	75	70	73
C., C., C. & I......	93½	91	89½	86¾	88	87½	85	85	85	78	65	72	72½
C., S. & Cleveland...	18¾	18½	20⅜	18⅜	16¾	14¼	12¼	13¼	11¾	9½	6¾	8	10½
C., C. & I. C........	37	40¼	40⅝	38⅛	37⅜	30⅜	28¼	32	30¾	22½	16½	24	27¼
Delaware & Hudson.	119½	118½	122	113	115	118¾	118½	114½	114	106	100	109½	116
Del., Lack. & W....	93½	101⅜	101½	100	101	105	97½	101⅜	100¼	88	82	95⅞	104
Dubuque & S. C....	70 o	63	63	....	63 o	....	54	60	62 B	....	50	....	50
East T., Va. & Ga...	53	50	50	50	50	50	50	50	50	....	....	....	50
Hannibal & St. Jo...	48½	48	45½	40	40	36	36¾	39	37⅝	24	15	23¾	27½
Han. & St. Jo. pref..	70	70	64⅛	....	....	54	54¼	54¼	46½	33	21	34	35
Illinois Central......	126½	120½	122½	114	116½	110½	109¾	108	105½	100	93	100	99
Kansas Pacific......	11¼	10	10¾	10	9	9	8	7½	10	8½	2	2½	3½
Lake Shore.........	96	94⅞	92¾	91½	91⅞	91⅛	94⅛	95	92⅜	75	60⅝	72	77⅜
Louisville & Nash...	79¾	78	79	77	77½	77½	79	74	73½	72¾	27	50	53
Mem. & Charleston..	24	20	20	20	20	20	20	20	18	16	....	14	14
Michigan Central....	110	109¼	108¼	105	105½	102½	95	95½	90¾	78	67	77½	77½

Mo., Kansas & Tex..	40	40¼	37⅞	35	36 o	30	34 o	34 o	....	....	....	4	4
Missouri Pacific....	54	58½	52	50½	47	47	41	46	45	31	27½	32¼	30
Mobile & Ohio......	45	40	50	50	45	40	38	38	31	....	....	....	31
N. J. Southern......	26	26½	26	27	35½	30	26	28	23	15	2 B	6	9
N. Y. Central.......	100⅜	104¾	103⅛	100	100⅜	101½	101⅞	105⅜	104½	91	77⅞	91¾	99
N. Y., L. E. & W...	60⅝	66⅞	66½	64⅛	64½	63⅝	62¼	59¾	59¾	51½	35⅝	47	46½
N. Y., L. E. & W pf.	77	80¼	79½	73	72	74	73	73½	72½	67	56¾	71	71
Northern Central....	76	77½	84	75	74	76	74	73	68	60	40	52	54
Ohio & Mississippi..	48¾	48¾	45⅞	44⅜	43¼	41¼	38⅝	39⅞	38⅞	29⅜	21¾	26½	30⅛
Ohio & Miss. pref...	74⅜	75	74¾	75	74	71	70	72	70	62	52 B	57	58
Pacific Mail........	73⅝	73¾	58	53	57	40¼	35⅝	37⅞	43	33¾	26¼	32⅜	38½
Phil. & Erie........	54¾	56	52½	50	52	49	49	49	36	34	28	34½	46
Phil. & Reading.....	113½	113¾	115¼	114¾	116	116¼	111	111	109	102½	99¼	106½	111½
Pullman Car Co.....	110	111¾	110	112½	114	114¾	112	112	109	100	87	97	95
Quicksilver.........	46½	46¼	44½	39	40	40	37	38½	35⅛	18	15	20½	28
Quicksilver pref.....	53	57	54	50	48½	49¼	48	48	45	30	20¼	34	33
Rome, W. & O.......	....	80	80	....	...	....	83	88	....	....	....	76	76
Rutland............	13	13	13	8	8	12	10	8	8	7	8	5	8
Rutland pref.......	58	60	56	50	51	56	56	54	51	49½	40	45	50
St. L., A. & T. H...	25 o	24 o	25 o	....	....	....	....	....	....	....	5 B	8	15
St. L., A. & T. H. pf.	41	....	40	50 o	....	50 o	50 o	50 o	39	35	20	25	34¾
St. Louis & I. M....	95	92	90	86	86	80	70	70	70	65	....	52	49
St. L., K. C. & N. pf.	67	67⅜	64½	55	....	40	42	47	44	21	....	31	31
Toledo, W. & W....	75⅜	73¾	73¾	72¼	70	68⅜	68⅛	72½	68¾	44⅝	34¾	47	49⅛
Tol., W. & W. pref..	90	....	....	....	....	....	85	....	....	....	....	71⅜	71⅜
Union Pacific.......	38	36⅛	34⅝	33¾	31¼	27½	25½	28¾	26¾	19¾	15⅜	26⅛	30⅜
Vermont & Canada..	60½	63	58	55	....	....	66	70	70 o	....	....	50	45
Western Union.....	81¼	85⅝	90	83	84⅞	85¼	84¼	92¼	91	66½	45⅜	67	73
Canton.............	102	100	101	92½	93½	99	99½	101	98½	72	46	60	70
Consolidation.......	47¾	49	51¾	55	56¾	54½	54½	55	54¼	42	40	47	50
Maryland Coal......	21	23⅞	23½	25	24	23	23	24¼	23⅜	17	11	17	19
Spring Mountain....	60	....	59	60½	58	52	....	....	....	40	....	40	39¾

COURSE OF THE MARKET, 1878.

STOCKS.	Jan. 1.	Feb. 1	Mar. 1.	Apl. 1.	May 1.	June 1	July 1.	Aug. 1	Sept. 1	Oct. 1	Oc. 181	Dec. 1	Close.
At., Top. & S. F....	11	10	10⅞	15⅜	25	27⅛	41¾	61½	61⅝	72¾	79¼	83⅞	83¾
Boston, H. & E.....	....	....	....	....	....	....	....	....	....	....	....	....	....
Catawissa..........	7	7	8	7 B	7 B	5 B	5 B	5 B	5 B	6	5 B	4 B	6 o
Central of N. J.....	12¾	16⅞	15⅝	16¼	16	25⅝	35½	38	33¼	36½	29½	29¾	33⅛
Central Ohio........	26⅛	25¾	23	22	23½	23	23	22	20	22	22½	24	23
Cheshire pref.......	37	37	35	36	36	35 B	33 B	32 B	34	35 B	30	25¼	25
Chicago, B. & Q....	102⅛	103¼	99¾	101¼	103¾	105	106¼	112¼	109⅛	112⅜	109½	110½	111
Chicago, M. & St. P.	36⅞	37⅝	37⅞	43¼	49⅛	53⅝	51⅝	35¾	28	31¾	29¼	35⅜	36⅞
C., M. & St. P. pref.	72⅜	69	70¼	72⅛	73½	80⅜	81⅞	72	65⅛	67¾	64	71⅛	76¾
Chicago & N. W.....	35¾	35¾	35⅛	45	51¾	53¾	41⅛	36½	34¾	41¼	38⅝	46⅞	50⅝
Chicago & N. W. pref.	62⅞	62¼	62¼	70⅜	71	77⅝	72⅝	68⅝	64⅞	71⅜	69⅜	77⅛	78⅛
Chicago & R. I.....	100½	99⅝	99	103¼	105	112¼	116¼	112¼	117⅜	118¾	113¼	117⅜	120¼
Cincinnati, H. & D..	10	10	10	12	12	11½	10	15	15	15	20	15	15
C., S. & Cleveland...	1½	2⅛	2	2⅞	4¼	3	4½	5⅞	4½	5⅛	4½	3½	3⅝
C., C., C. & I.......	39	34⅛	28⅝	29½	27	28	25	25	27¼	33	31	33	34½
C., C. & I. C........	3⅝	2½	2¾	4	4⅛	4¼	3⅞	4	3¾	4⅛	3⅞	5¼	5⅞
Delaware & Hudson.	52½	50	46⅞	54⅛	52⅝	56	56½	54¼	50	52⅜	44	38	38
Del., Lack. & W....	51	50⅝	47	54¾	51⅞	56⅜	58⅝	58¼	53	55⅝	49	46⅞	42⅞
Dubuque & S. C....	63 o	60	60	60	60	61¼	64½	65	65½	62½	50	55	56
East T., Va. & Ga...	35	38	45	40	....	....	....	....	....	....	35	....	35
Hannibal & St. Jo...	12	11¼	10	11½	11½	11¼	11⅛	11½	13¾	15¼	14	14½	13¾
Han. & St. Jo. pref..	26	24½	22	25¾	26¾	27½	27	26¾	35½	39¼	37¼	35½	34½
Illinois Central......	74⅜	75½	73½	75	76	83½	83¼	83½	80¼	82¾	74	77	79⅞
Kansas Pacific......	7¾	7	7⅝	8⅝	8¼	7½	6½	5¼	4½	4¾	8½	11¼	9½
Lake Shore.........	61½	62	61⅛	65	61⅞	63¼	56½	62¾	65⅝	68¾	65⅝	69½	68⅝
Louisville & Nash...	41	38	40	39	40	36½	35½	35	34	34	35	40	39
Mem. & Charleston..	6	....	6	6	6	6	6	6	5	5	5	....	5½
Michigan Central...	**62**	**61**	**59¾**	**64⅞**	**68¾**	**66½**	**64¾**	**63¼**	**69**	**71¼**	**67**	**69**	**73¼**

Mo., Kansas & Tex..	3⅝	4	3½	3⅞	3	2½	2½	2½	2	3⅝	3½	7	6⅜
Missouri Pacific.....	1⅜	1½	1	1	1	1⅛	1	1	1	1	1	1	1
Mobile & Ohio......	1 B	....	....	1	2	2	2½	3	....	4	4	2	3
N. J. Southern......	1⅛	1¼	1⅛	1⅛	1	1	1⅛	1½	1	1	....	1¼	1⅞
N. Y. Central.......	106½	105¾	104⅛	106½	106⅛	110⅛	108⅛	108½	111¾	114	109	111¾	114
N. Y., L. E. & W...	.8¾	9½	9⅛	10½	12⅛	15¼	15⅜	18⅛	14⅜	13⅞	10⅛	18¾	22⅞
N. Y., L. E. & W. pf.	22½	22	22	23½	27¼	32	30⅛	35	29¼	28	22½	31	37½
Northern Central....	32	31½	28	26¼	27	27	28	29	29	30	28	28	26½
Ohio & Mississippi..	8½	7⅜	7⅜	9	8⅜	9	7⅛	7⅜	7⅝	8¼	7¼	7¼	7¾
Ohio & Miss. pref...	16	14	14¼	13½	17½	15½	12	14	13⅝	14¼	13½	14	19¾
Pacific Mail.......	23	23	22⅝	20½	21	18⅛	16½	16¼	18	18¼	15¾	14⅞	13⅞
Phila. & Erie.......	18	17	16½	16	14	15	14	14	12	14	14	14	14
Phila. & Reading....	33	32¼	27½	26½	27	28¾	34¼	37	32½	32	27¾	26	24½
Pullman Car Co.....	75	76⅞	73⅞	73	77½	73¾	74¾	76	71	75	75 0	73⅝	74
Quicksilver.........	16¼	16	18½	18	16½	16	14	13	12	12⅜	12	11 0	11
Quicksilver pref.....	32	31½	30	30	34½	34	33	32	30	33½	31	33¾	32
Rome, W. & Ogd...	11	....	....	....	....	5 B	....	....	....	....	....	....	....
Rutland	....	....	....	....	....	....	....	¾	....	....	....	....	....
Rutland pref.......	9	9½	8¾	7	7	7	8	9	7	6½	6	6½	6¾
St. L., A. & T. H...	4½	4½	3½	....	1	1¼	2	1	1	1½	2	4	2 B
St. L., A. & T. H. pf.	15	17¾	12⅛	13	12	11½	5	....	4½	....	4⅛	9	6 B
St. Louis & I. M....	7½	6	5	7	7¾	6½	6	....	4½	6⅜	7⅛	15	13
St. L., K. C. & N...	4¾	4⅜	4⅜	5	4¼	4⅞	4⅜	4	4	4½	4⅜	7	7½
St. L., K. C. & N. pf.	23¾	20½	20½	23	20¼	21½	20½	19½	20	20½	20½	25⅞	25½
Wabash...........	15	16½	15¾	17½	14⅞	13⅞	14¾	14	14½	18¼	18⅜	20¼	21⅞
Union Pacific.......	65⅛	67¾	68	69⅛	69⅝	69½	64⅛	62	64⅜	66⅜	66	66⅛	66⅜
Vermont & Canada..	15	17	15	10	9	11½	10	12¼	10	10 0	8½	10½	10½
Western Union.. ...	78⅜	77	76⅛	79¼	80⅜	83¾	87⅜	92	92¾	97⅛	87¼	94¼	95⅞
Canton............	20	....	16	15½	16	15	19	15½	16	18	19	19	23
Consolidation.......	25	....	25	25	25	....	25	25	25½	25	25	25	24½
Maryland Coal......	10	8½	8	9	10	10	9¾	10	9	8	7	8	10 0
Spring Mt. Coal.....	35 B	....	....	....	....	43	....	....	60 0	48 0	48 0	50 0	50 0

COURSE OF THE MARKET, 1881.

STOCKS.	Jan. 1	Jan. 31	Feb 25	Mch31	Apr. 30	May26	J'ne 30	July 27	Aug 31	Sep. 30	Oct. 31	Nov 30	Close.
Burl. & Cedar Rapids.	75	79¾	69	75	72	90	80	80	75	78	80⅛	80¼	81¾
Canada Southern......	74	84	66	81⅛	75¾	81½	67⅜	63⅛	63¾	64	63¾	63½	52¾
Central of N. J.......	84¾	92	96½	102⅜	97⅝	105¼	101⅝	89¾	93¼	95½	95⅜	95⅜	91⅛
Central Pacific.........	92¾	89	80½	88½	86½	96⅞	100	89¾	89¾	95¼	95	95¼	92
Cent. Ohio 1st Pref..	34½	34¾	22	44½	43	48	45	35½	39	41	41	40	36½
Chic., Burl. & Q......	179¾	169¾	163	168	165	173	163	155	152	160	137½	141¾	136⅛
Chicago & St. Paul...	114½	115⅝	101½	111⅝	113½	129	126⅛	107½	114⅝	111⅝	108	108⅝	106½
" Pref...........	124	127	117	120½	126½	140	135	128	130	125⅛	122	122¼	119½
Chic. & Northwest'n.	127¾	128	117	124	124⅞	133⅝	127⅛	122¼	124¼	125⅝	124½	129⅝	125½
" Pref..............	141	139⅞	132½	136¼	137	145	140	137	139½	137	135	143¼	138½
Chic., R. I. & Pacific.	138¼	134½	130	136½	136¼	147½	142	133	134⅞	137½	135¼	135¾	132½
C., M. & Omaha......	48⅛	47¾	41	43	41½	46⅜	43	38	39½	43¾	41¾	40¼	36
" Pref............	98¼	105	91	100¼	98	107⅜	106⅝	99	102¼	105¾	102⅝	102⅝	99¾
Cl., Col., Cin. & Ind.	96	89¼	81	87⅛	86½	100½	94	89	86¾	98	91	93¾	83¼
Delaware & Hudson..	92¼	105	102½	112	109⅛	112¾	109¼	106½	107¾	108¾	109⅛	108⅛	106½
Del., Lack. & West.	109½	121¼	114½	122½	118⅛	128	122¾	118	124⅛	127⅛	126¾	126⅜	127⅛
Denv. & Rio Grande.	86½	96	89	107¾	106½	109	110⅜	94⅝	87¼	86⅛	82⅞	79¾	69½
Houston & Tex. Cen.	73	69	67	68⅞	70	93	99½	97	92	91	92½	90	88
Illinois Central........	127⅜	132¾	126½	136¾	136⅜	145¼	139	135¼	127¾	131	131	133¾	130½
Ind., B. & Western...	51½	73	56½	83	100½	110½	110½	45	43½	47	44	51	48
Lake Erie & West....	42⅜	50¼	50	53	50½	63¼	61½	52½	53¼	48¾	46⅜	45	34¼
Lake Shore............	134½	129⅛	118	131⅝	126½	135½	126⅛	120¼	123⅛	125	121	122½	112¾
Long Island......	25	30	25	25	33	45	63	64	48	53	55	55	50
Lou. & Nashville.....	89	87½	79	91¾	101	108½	106¾	98½	96¾	96½	94½	99	101⅜
Mem. & Charleston..	43	42½	41	42	55½	87¼	87	68	79½	79	74½	72	72½
Michigan Central.....	125	120¼	108	113⅛	108½	116¾	104⅛	96½	93½	92¼	93¼	93¼	86
Mo., Kan. & Texas..	44⅝	45⅛	39⅜	46	45	52⅛	50¾	40⅜	40¼	41½	40¾	41¼	36½
Missouri Pacific.......	92	92	....	....	92	108½	111⅞	102	103½	105⅞	105⅛	106	101

Mobile & Ohio........	21¾	23½	19	26⅜	30⅝	36½	38⅜	31½	34	36¾	37¼	37	35½
Nashville & Chat......	75	73	74	78	84¾	91	87½	75	82	85	85	86½	87½
N. Y. Central.........	154⅜	148¼	140	146¾	145	151⅞	146⅛	141⅛	142	142½	139⅜	138⅞	131
New York, L. E. & W.	50⅝	48½	43¾	48⅜	47¼	50½	46½	41½	42⅜	44½	44¼	46	40¾
" Pref.........	90¼	89¾	82⅛	88¼	87¾	91½	87½	80½	84½	89¼	88½	94½	89¾
" Seconds....	102⅜	100½	95½	102⅛	102½	104½	103¼	100½	100	103	102⅞	104	100
N. Y., Ontario & W.	30⅝	41⅝	30½	36⅞	34½	39⅛	37⅛	28⅞	30	32½	32⅝	31⅜	27½
" Pref............	....	....	....	....	....	70	61½	53½	55¾	58	54¾	58	57¾
Northern Pacific......	34	36	42	42½	42	45⅜	44¾	35	40	39½	38¾	40⅛	36½
" Pref.	66⅝	65½	66¼	72	71⅜	85	85¾	73½	80⅛	79	79½	82⅛	75⅝
Ohio Central..........	24	30	25½	31	29⅛	36¼	35½	25	26½	28	27	26½	23⅜
Ohio & Mississippi...	38¼	42½	36½	44⅜	43¾	47⅞	42⅛	36¾	37⅛	44⅜	41	40¾	36⅜
" Pref......	96	104½	104¾	107	106	126	116	108	105	106¾	110½	....	104
Oregon & Trans......	....	....	....	....	....	....	....	....	....	....	....	77	75¾
Oregon Nav.........	134¼	160	180	150	154	169	173	160	159	161¼	163	165	134
Pacific Mail...........	51	52¾	48⅞	55¾	52¼	57⅞	52	47	48½	51	49	45⅛	41
Phila. & Reading.....	51½	63¼	50	63½	53¼	60	60½	56½	61½	71¼	67¾	66½	67⅛
Pull. P. C.............	146	142½	144½	145¼	131	135	143⅜	144	140	130	133	129	132½
Rich. & Allegheny..	....	....	....	....	....	80	74½	52	46	46	39¼	39¼	41
Rich. & Danville......	86	87	86	93	98	115	102½	103	108½	100	104¾	119½	170
Rich. & W. Point....	....	....	....	....	....	....	....	....	....	....	....	122¼	174½
Rochester & Pitts.....	....	....	....	....	29¼	35¼	45	37½	30	31	29	29½	25⅞
St. L., A. & T. H....	42	49½	41	47	55½	70¼	64	45	43½	52	57	54	47
St. Louis & San F....	45	47	42	41	45⅞	49	52½	45¾	46¼	45¼	44¾	44	41
" Pref........	62¾	68	63	63	68	75	78¼	71½	71½	74⅞	69⅞	67	60½
" 1st Pref....	99	97	90	95	98¼	109¾	115	105	107½	107	105½	108	104½
S. P., M. & Manitoba	86	90	92	92	91	98	100⅞	101	101	103	106½	113¼	112½
Texas & Pacific.......	42½	49½	49	56	61⅛	68½	67½	52½	53	52	53	54¼	48½
Union Pacific..........	112⅜	120	105½	120¼	117½	127½	129⅜	122½	121⅛	119⅞	120¼	119¼	116⅝
Wabash..................	45¼	47⅞	39	46⅝	47¾	55¾	59⅝	48⅛	47½	50¼	48¼	44½	37
" Pref..........	86⅝	88½	77	89½	88⅜	95⅞	94⅞	86⅜	84¾	91	88⅛	85½	68⅜
Western Union.......	81⅛	115½	99	114⅜	116½	128⅛	127½	84⅛	87⅞	85⅞	86¾	85½	79¾

In the tables which give the course of the market for 1872, 1873, 1878, and 1881, quotations given are the nearest found to the dates named, and in many cases represent only prices bid, differing in that respect from the tables giving the range of prices, in which only actual sales are included. The averages of prices quoted for different dates are given in the preceding chapters. In the table for 1872, Atchison, Topeka and Sante Fe, being scarcely quoted for that year, is omitted, and the Marietta and Cincinnati first preferred, a stock of about the same price, is included in its stead both in the table and in the averages for that year. Also in the table for 1873, few quotations being found for Atchison, Topeka and Santa Fe, the Atlantic and Pacific preferred, a stock of about the same price both at the highest and lowest points of the year, is included. In the table showing the course of the market for 1878, the stocks included are those of the list quoted from 1872 to 1878, inclusive, while in the table giving the range of prices for thirteen years a part of those stocks are dropped for 1878, and those substituted for that year and 1879 are included. The tables thus give the range of prices both of the old stocks dropped at the close of 1878 and of the new stocks taken in their stead, and the averages are computed until the close of 1878 upon the same stocks that were included for the previous years. The table for 1881 includes only the new stocks, which are reckoned in the table of averages for the subsequent years.

It has been found that the more important changes in the course of the market were at the end of April, 1872, when after some years of advance prices began slowly to decline; November 7th, 1873, when the panic of that year culminated; February 10th, 1874, when a temporary recovery ceased; May 18th, in that year, when another temporary advance began; April 25th, 1875, when the highest point in that year was touched; October 9th, when the decline of that year terminated in the lowest prices yet reached;

March 11th, 1876, when a partial recovery from the depression of 1875 reached its culmination; September 29th, 1876, when the lowest prices of that year were recorded; and April 23d, 1877, when the average of the prices of active stocks was the lowest of the whole record. The lowest average for all securities is found October 18th, 1878, and from that point until Nov. 15th, 1879, there was an unbroken advance. After a brief decline, the market moved upward again until March 8th, 1880. It declined until May 25th, but reached a higher average of prices than ever Dec. 27th. The highest prices of the whole period of thirteen years were made May 26, 1881. In the subsequent downward course, the first important depression culminated March 11, 1882. A recovery reached its height September 16th, but was followed by a greater depression than before, November 25th. A recovery culminated in January, 1883, and without great depression was followed by a farther advance to April 13th; but from that point to the 17th of October the market declined, and after brief recovery reached still lower prices December 31st. Finally the lowest average in 1884 is found to have been made on the 27th of June. The following tables contrast the prices at these the more important points of each year. Table No. 8 shows the course of prices of the "old list," namely the stocks quoted from 1872 to 1878, and Table No. 9 of the "new list," namely, the stocks quoted from 1878 to 1884. In this, as in all other tables of like character, where quotations on the date named were not found, those nearest that date or most closely corresponding with the state of the market are included. In Table No. 10, the prices of investment stocks are given for the dates in each year on which the active stocks reached their highest or lowest points.

TABLE No. 8—ACTIVE STOCKS AT POINTS OF CHANGE—OLD LIST.

	1872. Apl 30	1873, Nov 7.	1874, Feb 10	1874, My 19.	1875, Apl 27	1875, Oct. 9.	1876, Mch 11	1876, Sep. 29	1877, Apl. 23	1878, Oct 18	1879, N'v 15.	1880, Dec 27	1881, May 26
Atch., Top. & S. F..	....	....	14⅞	10	12	13½	16¼	18¼	14¾	79¼	109	148	143⅞
Bost., Hart. & E....	9¼	1½	3⅜	1¼	....	....	....	....	....	....	....	....	2⅞
Catawissa..........	36	10	18	15	20¼	17½	17½	10	4½	5 B	16	14 0	25 0
Central of N. J......	110	85½	109½	105	120	100¾	107½	23¾	7½	29½	89⅞	82¼	105¼
Central Ohio.......	31	33	41	42	44	41½	43	35	23	22½	37	48	47
Cheshire Pref.......	82½	65	80 0	78	70 0	59 0	36	35	37½	30	46½	60	47
Chic., B. & Quincy..	133	76 B	110½	102	117	110¾	119	114	96	109½	120½	183½	173
Chic., M. & St. Paul.	61½	22	48⅛	31⅞	37	29⅝	45¼	28	14½	29¼	81½	114½	129
Chic., M. & St. P. Pf.	80½	43¾	74⅝	48	57½	58¼	83¼	58	40⅞	64	102	124	140
Chic. & Northwest..	80½	34¼	61¼	39⅝	42⅝	33⅜	44¼	34½	15⅝	38⅝	93	126¼	133⅝
Chic. & Northwest Pf	94½	53½	77¾	58	55	46	65¾	59⅝	37¾	69⅜	107	141	145
Chic., R. I. & Pac...	115⅜	84⅛	108⅞	94½	105⅜	101⅞	111¼	103½	82½	113¾	149	140½	147½
Cin., Ham. & Day..	91½	75	80	65	62	48	55	30	28	20	....	99	100 0
Cin., Sand. & Cl....	21¾	6¾	10¼	9⅛	12⅝	10	9¾	6¾	2¼	4½	28	18½	31¾
Cl., Col., Cin. & Ind.	39½	65	82¾	64	62	48	52⅝	35¼	21	31	85	96	100½
Col., Chic. & I. C...	91½	16½	32⅛	19	6¼	3½	4¾	3¾	2⅛	3⅞	25	21	31
Del. & Hudson.....	120½	100	118	116	121½	119½	119⅛	62⅞	39¼	44	88¾	91¾	112¾
Del., Lack. & W....	108½	82	112⅜	106½	123	116¼	119¾	68⅛	43¾	49	93¼	107½	128
Dubuque & S. C....	70	50	65	60	56	62	76	55	40	50	60¼	80	85
E. Tenn., Va. & Ga.	55	50	60 0	50 B	50 B	40 B	45 B	40 B	40 0	35	45	70	180
Han. & St. Jo......	44	15	32¼	25	27	16	18¾	12¾	8	14	41¼	48½	84⅛
Han. & St. Jo. Pref..	62	21	41½	30½	30¼	20½	29	22	17	37¼	70⅛	103½	115¾
Illinois Central......	135	93	108½	98	106	95	103¼	83½	47½	74	100¼	127	145¼
Kansas Pacific......	13	2	4½	2½	11¾	10¼	12	5	2 0	8½	88	....	....
Lake Shore.........	97¼	60⅝	83⅜	74¼	71¼	51⅞	66	52⅞	45	65⅝	104⅛	136⅞	135½
Lou. & Nashville.....	74½	27	59	42 B	34	30	34	25	29	35	89¼	88	108½
Memphis & Chas....	35	14	14	10 B	8	7	6	5	3	5	9	39	87¼
Michigan Central....	115½	67	94	75	74	53¾	63¾	40¾	36⅛	67	97½	126⅞	116¾

Mo., Kan. & Texas..	35	4	16½	10	4	6	14⅜	7½	4½	3½	33	46⅛	52⅛
Missouri Pacific.....	90	27½	43¼	35	55	15	13½	3½	2 B	1	3	69	108½
Mobile & Ohio......	42	31	35 0	35 0	5	5 0	5 0	2 0	....	4	26	23¼	36½
N. J. Southern......	26	2 B	6½	4	6⅞	2	1	½	⅝	1	....	....	....
N. Y. Cent. & H. R.	99⅞	77⅞	105⅜	95⅞	105	102	116¾	97	85¼	109	131½	152	151⅞
N. Y., L. Erie & W..	68½	35⅝	49	35⅛	31⅛	16½	22	9	6½	10⅛	49	51⅛	50½
N. Y., L. E. & W. Pf	82	56¾	74¼	61	44	35	37	12¾	12	22½	78⅛	93½	91½
Northern Central....	81	40	72	65	62	56	79¾	60	33	28	63	45¼	110
Ohio & Miss........	50½	21¾	34¾	22¾	27¾	15	21½	11¼	3¾	7¼	33⅜	38¾	47⅞
Ohio & Miss. Pref...	78⅞	52 B	66	40	57½	31	41	19	6½	13½	64½	95	126
Pacific Mail........	77	26¼	44	41¼	45¾	34¾	20⅝	22¾	16¼	15¾	37½	52	57⅞
Phil. & Erie........	56	28	44	38	43¼	38½	42	30	13	14	35	20¾	53
Phil. & Reading.....	118¼	99¼	115	113¼	112¾	110¾	101¼	64½	23½	27¾	74½	54¾	60
Pullman Car Co.....	115	87	98½	95¾	95½	85¾	83	75	72½	75 0	108	146	135
Quicksilver.........	43⅜	15	34⅜	24¼	19	16	17½	13	13	12	20	13	19
Quicksilver Pref.....	54¾	20¼	41	26	31	20⅞	24½	19	18	31	61½	52	65
Rome, Wat. & O.....	95	76	75	80	72	50	49	....	....	5 B	24	30	36
Rutland............	16½	8	8	4	3½	1	1	3	1	¾	8¾	5¾	7
Rutland Pref........	62½	40	45	30 B	20	15	10	7	8	6	28½	29½	32½
St. L., A. & T. H...	24	5 B	16	11	7	5	5	3	1½	2	24	42	70¼
St. L., A. & T. H. Pf	55	20	35	33	27	20½	18¼	10	9½	4⅛	46	111¾	143¾
St. L., I. M. & S....	102½	52	68½	22	17	14	26⅛	15½	4	7⅛	56	55	108½
St. L., K. C. & N. Pf	77½	21	34⅝	20	45	24⅛	31	28	20¾	20½	60¼	....	....
Tol., Wab. & W.....	78	34¾	54⅛	35¼	16¼	5½	3¼	4¼	3½	18⅜	....	....	....
Tol., Wab. & W. Pf..	89	71⅜	71½	40 E	20½	6¾	6	5½	3⅞	....	....	....	....
Union Pacific.......	40½	15⅜	35⅝	25¾	78¼	62½	68	60¾	64⅛	66	92	113¼	127½
Vermont & Canada..	99½	50	50	43½	52½	25	25	20½	16	8½	18 B	10	19½
Western Union......	77	45⅜	77⅞	69⅞	79¼	73⅞	67⅞	69¾	56	87¼	108⅛	82	128⅛
Canton.............	92	46	82¼	55	72	42	42¾	23	17	19	59	78¼	70
Consolidation.......	43	40	49⅝	39	47⅜	44½	44½	31¼	20	25	39	53½	42½
Maryland Coal......	22½	11	24¾	15	17¾	15	18½	8½	8½	7	25	24	30
Spring Mt. Coal.....	55	40	65	70	67	55	64¾	48	40	48 0	....	....	....

TABLE No. 9—ACTIVE STOCKS AT POINTS OF CHANGE—NEW LIST.

	1878. Oct. 18	1879. Nov 15	1880. Mch. 8	1880. May25	1880. Dec.27	1881. May26	1882. Mch11	1882. Sep. 15	1882. Nov25	1883. Apl.13	1883. Oct. 17	1884. Jne. 27	1884. Dec 27
Burl., C. R. & Nor..	22½	62½	66½	50	76½	90	80	84	79	82	80	55¼	50¼
Canada Southern....	39½	77¼	69	48¾	79	81½	44	66	62¼	69⅛	47¼	24¾	29
Central of N. J......	29½	89⅞	90¼	45	82¼	105¼	80	80	64	76½	78	54½	37½
Central Pacific......	85 o	....	82¾	63	97½	96⅜	87⅜	94⅛	83¾	80¼	61⅛	31½	33¼
Ches. & Ohio 1st Pref	....	27	34¼	24½	36¼	48	29¼	41½	31½	33½	23½	11¼	9¾
Chic., B. & Quincy..	109½	120½	144	113½	183½	173	128	135	120½	129⅜	120⅜	107	114
Chic., M. & St. Paul.	29¼	81½	82½	66½	114½	129	108⅛	127½	96½	104⅞	92⅞	58¼	69⅜
" Pref.......	64	102	104⅜	99	124	140	119½	143⅛	114½	121⅞	115	95⅞	103
Chic. & Northwest...	38⅝	93	94½	87⅝	126¼	133⅝	128⅛	149½	129¾	140⅛	115⅝	82½	82¾
" Pref........	69⅜	107	107¼	106	141	145	138	168	145	157	134	117½	121½
Chic., R. I. & Pac....	113¼	149	152¾	187½	140½	147½	129	138¼	122¼	126⅛	117½	103	105¾
Chic., St. P., M. & O	....	45½	43½	35	51	46⅜	30½	54½	42⅝	52	30	22⅛	24
" Pref	....	79¾	80	72	101⅝	107⅝	98⅛	113	100½	109	91	80¾	84½
Cl., Col., Cin. & Ind.	31	85	78⅞	61	96	100½	74	84	70⅞	79⅛	55½	28	32½
Delaware & Hudson.	44	88¾	84	60	91¾	112¾	103	116⅞	106⅝	112	102½	90¼	68
Del., Lack. & W....	49	93¼	94½	68½	107¼	128	116½	149⅝	124¼	131½	111½	105⅞	89½
Denv. & Rio Grande.	12	40	70	50	86½	109	55½	59⅝	39	50¾	23¼	7	8¾
Houston & Tex. Cen.	10 B	57	87½	50½	76½	93	61	87	70	78½	50 o	20	32½
Illinois Central......	74	100¼	104⅜	100½	127	145¼	131	142½	138¼	147¼	129½	110½	116½
Ind., Bloom. & W...	....	16	39¾	25	52	55¼	37½	49½	30⅜	34½	19	9	11¾
L. Erie & Western..	....	28½	37	21	42¾	63¼	28	41⅞	25⅛	32¾	13½	6⅞	8¾
Lake Shore.........	65⅝	104⅛	110½	97⅝	136⅞	135½	110½	116¼	110⅞	114¼	94	67⅜	59½
Long Island........	12 o	12	15	10 B	25	45	50½	65	56	69½	58	63¼	64
Lou. & Nashville....	35	89¼	160	120	88	108½	70¼	74⅞	48¼	58⅛	44½	22½	24½
Memphis & Chas....	5	9	38	29	39	87¼	47	61½	42¼	44	39	23	26
Michigan Central....	67	97½	94½	75	126⅞	116¾	78⅞	104⅝	93¼	96⅝	77	51¾	55
Mo., Kan. & Texas..	3½	33	46½	28⅛	46⅛	52⅛	26⅜	40⅞	28½	33⅛	19½	9½	14¾
Missouri Pacific.....	1	70	.	....	69	108½	87¼	110⅛	95⅝	106⅝	90½	91⅞	89¼

Mobile & Ohio......	4	26	29¼	13⅛	23¼	36½	26	23	17¾	18	10	6¼	7¼
Nash., Chat. & St. L.	29	78½	123	60	76	91	55	62¼	50	58	52¼	33	36
N. Y. Central.......	109	131¼	132¾	122¼	152	151⅞	129	137¾	126½	128½	112½	94¼	83¾
N. Y., L. Erie & W.	10⅛	49	47½	30¼	51⅛	50½	34¾	43⅝	40⅞	39⅛	27½	11⅛	13⅝
" Pref.........	22½	78⅛	72½	47	93½	91½	69¼	87¾	80½	81	72	20	28
" Seconds......	62	92	92¾	85⅛	102⅞	104½	93	100¼	98	98	93¼	45½	55½
N. Y., Ont. & W....	....	....	29⅞	25	32⅝	39⅛	22	28½	25¾	28⅞	19¾	7	11¾
Norfolk & W. Pref..	....	....	....	....	....	70	46½	59⅞	49¾	43	38½	24	21
Northern Pacific....	2	40½	34½	20⅛	33⅞	45⅜	29¾	53⅝	41¾	52½	23⅛	14	16⅝
" Pref..	18½	65	57⅝	40	65	85	68½	100⅜	91¾	89¼	56	37¼	39⅝
Ohio Central........	....	....	27⅜	17½	25⅜	36¼	18	18¾	12	14¼	3	1¾	1¼
Ohio & Miss........	7¼	33⅜	43	23	38¾	47⅞	30	40¼	31¼	36¾	25⅝	14⅝	17¾
" Pref....	13½	64½	81	69⅜	95	126	90¾	108½	108½	108	90	45⅛	45
Oregon & Trans.....	....	....	....	....	....	83	61	98½	78¾	84¾	34½	7⅛	13¼
Oregon & Nav.......	....	104	112	105½	136	169	128	160	150	144	96	62½	70¼
Pacific Mail.........	15¾	37½	62	29¾	52	57⅞	70¼	74⅞	48¼	43½	35¾	38½	54½
Phil. & Reading.....	27¾	74½	72	18⅞	54¾	60	51½	66⅜	47¼	56⅜	48	22½	17
Pullman Car Co.....	75	108	116	111	146	135	124	134½	120¼	125	124	95	106
Richmond & All.....	....	....	....	....	....	80	20	20	14	14½	4½	2¼	2⅛
Richmond & Dan....	5	25½	68½	79	89¼	112	116	116	58	61	55	37	45
Richmond & W. P...	....	...	....	....	....	124	100	63	24	32¼	27⅜	12	18
Rochester & Pitts....	....	....	....	....	....	35¼	30	26⅞	17¾	22	14½	3½	2⅝
St. L., A. & T. H...	2	24	23¼	12	42	70¼	24	47¾	40	70¾	35	18	20½
St. L. & San. Fran...	1½	53	45⅜	29	46½	49	34¾	43	32½	34½	20½	13	20½
" Pref..........	3⅝	60½	60¼	38¾	63	75	45	63½	49½	54½	43	25	38½
" 1st Pref......	6½	78½	82	61	97	109¾	88½	100	90	99	89	73⅞	83½
St. Paul, M. & Man..	....	....	....	....	88	98	111⅛	163¼	135	165	105	78½	81
Texas & Pacific......	....	....	47⅜	30	46¼	68½	34½	51¾	34½	42⅝	19⅜	5½	12
Union Pacific........	66	92	94½	80¼	113¼	127½	110⅝	115⅞	99⅞	101½	84⅞	29⅝	45¼
Wabash.............	4⅜	47¾	44¾	26½	46⅜	55¾	30⅜	38¾	27½	32¼	17¼	4	4¾
" Pref........	20½	72½	69⅜	51¼	88⅛	95⅞	55	70½	50⅜	53⅛	29¾	9½	12½
Western Union......	87¼	108⅛	113	90⅜	82	128⅛	76⅛	93⅜	78⅝	84⅛	76⅛	51½	54⅛

TABLE No. 10—COURSE OF INVESTMENT STOCKS.

	Apl 30 1872.	Nov 7, 1873.	M'y 19 1874.	Oct. 9, 1875.	Sept29 1876.	Apl 23 1877.	Oct 18 1878.	N'v 15 1879.	Dec 27 1880.	M'y 26 1881.	N'v 25 1882.	Dec 31 1883.	J'ne 27 1884.
Albany & Susq......	94½	85	94½	100⅛	80	67	81	102	119	131	131	134	126
Balt. & Ohio........	149	153	167½	179	152¼	122½	82	152	180	210	193	193	174
Bost. & Albany......	150	142½	131	135	134	119	130½	136¼	163	174	173	173¼	155
Bost. & Lowell......	142	103¾	106	55	52	61½	76	....	....	....	....	....	....
Bost. & Maine.......	140¾	106	106½	112¼	96¾	90	109¼	117½	146½	162	147	160½	146
Bost. & Prov........	152	147	148½	157	137	122	110	124	152½	164	160	160	160
C. R. & Mo.........	....	....	....	....	....	....	89	100½	139½	149	140	99½	101
C. R. & Mo. Pref...	....	....	....	....	....	....	104	110	120	120	120	119	124
Chic. & Alton.......	118	92	102	98	97	87	79	100	159	147	128½	134¼	120
Chic. & Alton Pref...	121	90	103	103½	107	105	104	115	160	147	140	145	146
Cl. & Pittsburg.....	92⅞	73¾	88 o	91	87	84½	81	106	129½	142	139	138¾	130
Col. & Zenia........	107	98	98	96	98½	99	100	115	136	145	150	148	150
Concord............	80	70	80	80 o	81	74½	74	81	96	100	101½	97½	100
Concord & Ports.....	....	....	....	....	....	....	117	115	120	118	115	115	116½
Conn. River........	140	125	138 o	130	134	133¾	136	141½	156	165	165	166	166
Day. & M. Pref.....	105	105½	103½	101	104	102	92	107	133	137	142	140	140
Fitchburg..........	139	121	127	127½	112	109⅜	123¼	122	144	153	132	124½	110
Harlem............	128½	101	128⅝	131	133¼	135	135	165	196	250	200	190	196½
Harlem Pref........	131	110	129	131½	....	139	135	....	....	....	....	....	....
Joliet & C..........	93	85	95	100	....	100	100	....	....	....	....	....	....
Lehigh Valley......	119	108½	121¼	123¼	96	70	74¾	105	114	124	129½	139¼	126
L. Miami...........	107¾	98	99	94	96⅛	98	98	115	134	141½	146	146½	145
Manch. & Law......	145	135½	125	130	137	127½	133½	140	165	160	165	166	161
Morris & Essex.....	95	85	95⅞	104	89¼	57½	79	103	123	130	124	121½	116
Nashua & Lowell....	148	130	130¾	80	80	90	106	106	140	146	145	140	145
N. Y. & N. H.......	146	119¾	135 o	144	149	146	158½	161½	176	185¼	184	176½	177
Northern N. H.....	114	100½	103½	70	69	67	92	85	89½	107½	107	113	115

North Penn........	102½	94	88	106	98	84	76	....	....	....	....	....	....
Norw. & Worcester..	125 0	117¾	127	126	125	113½	132	126	144	161	159	154	158
Old Colony.........	112	107¾	109	109½	106½	92⅛	90¼	107½	126¾	134	136½	137¾	136½
Pennsylvania.......	116½	90½	95½	101	94¾	72	65¾	97¾	129¼	132¾	117¾	118¼	101¾
P. & Ft. Wayne.....	97½	81	94¼	97⅞	99½	85	96¾	113½	129	142	135	132½	120
P., G. & Norristown.	175	164	178	194	202	194	200	204	216	216	216	216	217
Penn. Coal.........	219	247	280	275	220	170	140	....	....	....	....	....	....
Ren. & Saratoga....	105	97	110	115	115	87	100 0	109¾	129	145	141	145	138
Terre Haute & I ...	....	....	....	....	....	....	80	100	100	100	100	103	100
U. R. R. of N. J....	125¾	113	122	132	135½	129	127¼	148	180	192	189	195	187
Verm. & Mass......	84	80 0	81½	96½	103	106½	110	116½	125½	130	130¾	131½	131½
Warren............	88	83	....	102½	90	81	75	85	112	119	115	115	114
Port., Saco & P.....	132	122	121	80	58	54	87¼	100¾	111	115½	112	114	113
N. Y. Elevated......	....	....	....	....	....	....	75	136	126½	111⅛	101	98	115
Adams Express.....	99	79	102	100	107	94½	108⅛	108	128	137	135	128½	126
American.	75	53	61¾	58	58⅛	50½	48	65	66	88½	94	91½	87
United States.......	77½	47¼	67	44¼	63¼	39⅞	48	56	53⅜	73	64	56	49
W. Fargo..........	85	60	75	79½	79	82⅞	96¼	104½	118	126½	129	113½	100
Average..........	144.43	105.55	111.71	112.26	107.93	98.56	102.26	115.09	133.89	143.29	138.81	137.29	133.49

Table No. 10 includes five stocks for the years prior to 1878, but not for the subsequent years, five others being taken in their stead. At the point of change, namely, the lowest point in that year, the old list averages only 1½ per cent. higher than the new list.

Tables Nos. 11 and 12 give the prices of railroad bonds. Here it is found necessary to use different lists of securities for the periods prior to and after 1877. On account of the complete disappearance of many securities, a list embracing only 60 bonds prior to 1877 gave less reliable results than were desired. Accordingly the list for the earlier years. Table No 11, old list, embraces 106 bonds which represent almost every important railroad, and includes bonds of many corporations which went into bankruptcy during that period of disaster. Table No. 12, new list, gives the prices of 60 bonds April 23, 1877, and at each of the important dates in later years. At the point of change in 1877 the new list averages 2½ per cent higher than the old list, namely, $88.17; in 1878, $94.55; in 1879, $106.70; in 1880, $115.62; in 1881, $118.44; in 1882, $114.37; in 1883, $114.95, and in 1884, $111.50.

Table No. 13 gives for the same important dates the prices of United States, State, and city bonds. In this instance, also, it is found necessary to change the securities quoted. Rapid retirement of old United States bonds renders it useless to quote them as an indication of the course of the market for such securities after 1878, and the later quotations of the five and six per cents serve only to show that their prices were no longer governed by the usual estimates, but by a belief that the bonds would be speedily paid and the investment thus terminated. Consequently, while all the prices of United States bonds quoted in table No. 13 are included in averages prior to 1878, the averages for the subsequent years include only the Currency 6s, the 4½, and the 4 per cents, which have been continually quoted since that time.

In comparing State bonds similar changes are found necessary. The old six and seven per cent. bonds of Georgia, which mature in 1886, have ceased in later years to be a fair indication of the credit of that State. In place of them the Georgia gold sevens of 1890 are included in later averages. Kentucky sixes also ceased to be quoted in 1879, and Alabama eight per cents and Louisiana six per cents vanished from sight. In place of these, bonds of other States are included in the averages for years after 1878, though the average of the new list is 15.4 per cent. higher at the point of change than that of the old list. By increasing the earlier list in that ratio, in the computation by percentages, the relative value of such securities for the different periods is correctly shown. In the table of city bonds, sixteen are found which can be satisfactorily quoted for the whole period. For years after 1878 four others are added, which increase the average price in that year about 2 per cent.

TABLE No. 11.—COURSE OF RAILROAD BONDS, OLD LIST.

	1872. Apr. 30.	1873. Nov. 7.	1874. May 19.	1875. Oct. 9.	1876. Sep. 29.	1877. Apr. 23.
Alb. & Susq., 1st mort......	99	97	102½	111¾	109¼	107
" 2d mort......	97⅝	90	100 0	105¾	102	88
" 3d mort......	90	95½	....	102⅛	100	80
Atch. & P. P., 1st 6, g...'95	60	50	50 0	30 0	27	29
Bost., Hartf. & E., Guar'...	51¼	25	40	21¼	18	8
" " 1st mort..	47⅛	24	22¾	20	19⅛	10½
Buff., N. Y. & E., 1st....'77	96¼	85	88½	82	91	99
Bur. & Mo. R., L. M. 7..'93	94	90	98	105	109¼	108
B. & Mo. (Neb.), 1st m. 8.'94	98	90	....	....	102½	102½
Cal. Pac., 1st m. 7, g....'89	103	88	80	70	85½	75
Carthage & Bur., 1st 8...'79	96½	95	96	104	102	100½
Ced. Falls & Minn., 1st....	84¼	69½	80½	80	90	79
Cent. of Iowa, 1st m. 7, g..	90	60	40	32	32	35
Cent. of N. J., 1st m. 7..'90	104¾	99	105	111¼	107⅛	105⅛
Cent. Pac., St. aid 7, g...'84	111	100	....	106	....	107
Cent. Pac., Gold bonds....	103	80	89	107⅛	110	106
Chic., B. & Q., 1st M., 8s..	113¼	105	110	115	116	114
Chi., B. & Q., 1st S. F. 8..'83	113½	105	....	115	116	114
Chi., Dub. & M., 1st 8..'96	89	50	45 0	25	20	20
Chi., M. & St. P., L.C.1st.'05	94	87½	88¼	94½	....	99⅛

	1872. Apr. 30.	1873. Nov. 7.	1874. May 19.	1875. Oct. 9.	1876. Sep. 29.	1877. Apr. 23.
Chic., Rock. I. & Pacific....	102¾	96½	105	108¾	109½	107¾
Chic. & Alton, 1st M.......	105½	100½	107	100½	120 0	113⅛
" Income.......	96	90	96½	100	105	103½
Chic. & N'west, Sink. fd....	101	90½	102	108½	108	108
Chic. & N'west, Interest....	100	85	96	105 0	104½	105
" Con........	96½	78¾	85	97¼	104½	105
" 1st mort....	100	89	101	99½	107	105
Cleve. & P., Con. S. F.....	97	88	98	108 0	109	112
" 4th mort.......	86½	80	92	101½	105	106
Cleve. & Toledo, New.......	96	84	97½	100	102½	104¼
" Sink. fund.	103	97	103	106½	108	109½
C. C. & I. C., 1st mort.....	89¾	76¼	83	40½	37½	26
" 2d mort......	77	45	59½	15	8	3⅝
C. C. C. & I., 1st 7s, S. F..	101½	95	99½	108	110	107½
Del., Lack. & We., 2d mort.	96¼	97	105	111	106	106⅛
" 7s, convert..	100	90	104½	117	103	106½
Del. & H. Canal, 1st M....	102	99	106	112	106	94½
Den. Pac., 1st m. 7, g...'99	95	85	70	80	80	70
Det., Mon. & Tol., 1st 7.'06	98	90	98	100¼	....	107
Dixon, P. & H., 1st m. 8..'89	97½	95	96	104	103	101
Dub. & S. City, 1st mort....	94	87½	95	102½	105½	102
E. Tenn., Va. & Ga., 1st M..	94½	....	80	87	93	91
Erie, 1st mort., exten.......	103¼	96	102	104½	109	112½
" 7s 2d end........1879	98	95	99	98½	101½	103
" 7s 3d end...... .1883	95½	94	91¼	95½	99½	103½
" 7s 4th end.......1880	93	89	91¼	95	100½	101
" 7s 5th end.......1888	92	91	93½	92	100½	101½
Gr. Rap. & Ind., 1st l. g., 7.	102	95	100	104	105	98
Han. & St. Jo. Convertible..	92	60	78½	75¾	76½	70
Hud. Riv., 2d 7s, S. F.....	106½	103	105¾	111¼	109	114
Joliet & Chi., 1st m. 8....'82	108	100	108½	108	110	108
Kansas Pac., 1st m. 6....'96	86	87	60	60	60	46
Lake Shore, Dividend......	95	81	96	99½	105	104
" Consol., coup..	101½	87½	96¼	101	107½	106
" Consol., reg....	100	87	97	99½	104½	104⅛
Leav., Law. & G., 1st 10.'99	94	50	25	18	20	24
Long Dock...............	96¼	90¼	100	104	105¼	107
Long Island, 1st M., 7s....	92	88½	88	103	103½	101½
Mar. & Cin., 1st mort......	96	101	100	105	107	106½
Mich. Cent., 1st M., 8s.....	112	102	107	112	116½	109½
Mich. So., 2d mort., 7s.....	101½	90	99½	103	104	104
Mich. S. & N. I., S. fd., 7s..	104	95	101½	108	110	111
Mil. & St. P., 1st M., 8s....	107	100½	105	109½	116	114½
" 2d mort., 7 3-10s..	96	80	91½	90	99 0	93
Mil. & St. P., I. & M. D....	89½	66	80	81½	93½	83½
" 2d mort......	88	84	80	90	99 0	86½
" 7s, gold......	96⅝	70	88	90	103	85

	1872. Apr 30.	1873. Nov. 7.	1874. May 19.	1875. Oct. 9.	1876. Sep. 29.	1877. Apr. 23.
Morris & Essex, 1st M.....	106⅜	99	105	115 o	116	115⅞
" 2d mort.....	99¾	95	102½	108	116¾	103⅛
" Construction.	93½	90	92½	100	91	72
" 7s of 1871....	98½	95	93	108	100	93½
N. J. Southern, 1st mort.....	80	40	36	....	20	20
N. Y. Central, 6s.......1883	94½	86	92¼	103 o	104	103½
" 6s.......1887	94	85	94	102	106	103
" 6s, real est...	91	80	88	102	101	102½
" 6s, sub......	91	81	87	102	102½	102½
" 6s........'87	94	85	91½	103 o	106	103
North Mo., 1st m. 7.....'95	92½	82½	84	90½	98	97
Ohio & Miss., Consolidated.	94⅞	83	86	88	92	84¾
" 2d mort.......	85	....	67	64½	65½	46
Pacific, 7s, guar. by Mo....	100	92½	100	101½	84½	95
Pitt., C. & St. L., 1st m. 7.'00	79½	70	....	....	82	80¾
Pittsb., Ft. W. & C., 1st M.	106	99	105½	113½	119½	119
" 2d mort......	101½	97	102½	107	110½	112
" 3d mort......	98½	84	94	98½	104	101
Port Hur. & L. M., 1st 7.'99	70	75	25	20	10	15
Quincy & Tol., 1st M.,....'90	94½	86	82½	50 o	60	60
R, R. I. & St. L., 1st 7, g.'18	45	30	15	10	15 o	14
St. J. E. D. D. C., 1st 8, g.'99	101	75	22 o	20	12	10
St. L., Alton & T. H., 1st M.	98½	92½	100	107	106	103
" 2d pref.....	88½	82	88	88½	90 o	86
" 2d income...	84	67	73	76 o	75 o	72
St. L. & I. Mt., 1st M......	95½	80	90	90¼	97⅛	93½
St. L., Jack. & C., 1st 7..'94	91	84	92½	99½	104¼	107
Tol., P'oria & W., E. Div...	93½	66	80	71	87	86
" W. Div.....	91½	60	74	75 o	80	85
" 2d mort....	84½	72	59	35 o	42 o	30
" Bur. Div.....	88	72½	68	35 o	91½	30
Tol. & Wab., 1st exten.....	97	89	95¾	82	91	100½
" 1st M., St. L. Div.	91¾	76	78	55	66 o	73½
" 2d mort..........	96	80	82¼	51	62	67
" Equipment.......	88½	68	67	20 o	....	16
" Consol., Convert..	92	70	70	32 o	37	35
Union Pacific, 1st mort.....	93	65⅞	84¾	108⅝	106⅝	103⅞
" Land grant 7s.....	81⅞	57½	75¼	98	104¼	99¾
West. Un. Tol., 1st mort....	97¾	85	96½	103	....	103
Average 106 bonds........	94.10	82.51	85.84	86.21	89.05	86.07

TABLE No. 12—COURSE OF RAILROAD BONDS, NEW LIST.

	Apl. 23, 1877.	Oct. 18, 1878.	Nov. 15, 1879.	Dec. 27, 1880.	May 26, 1881.	Nov. 25, 1882.	Dec. 31, 1883.	June 27, 1884.
Atch., Top. & Santa Fe g, l.......1902	78¾	105½	112½	119½	122	113	114½	113
Baltimore & Ohio, Sterling........1927	....	87	102	105½	110	108	106	106
Boston & Albany 6s..............1895	104½	108⅛	111	114½	117½	116	108	117½
Boston & Lowell.................1896	100	103½	107	110	111	111	111	111
Burlington & Mo. River 7s, 1st M..1893	108½	111	114½	116	118½	115	118	112
Catawissa........................1900	95	104	112	112	127	117	122	120
Cedar Rapids & Mo. 1st...........1916	99½	106½	113¼	121	123	121	122¾	122
Central of N. J. Conv. Ass........1902	48	64	101⅝	117 0	117¼	106¾	113¼	103
Central of Ohio 1st...............1890	101¼	99½	106	111½	114½	107½	110	108
Central Pacific & San Joaquin 1st..1900	87 0	89¼	99½	106	110	108	108½	100
Chicago & Alton, Sterling.........1903	104	104	112	116	120	117	119	116
Chicago, Burl. & Quincy Consols...1903	110 0	114	121	130½	131	130 0	129½	122¼
Chicago, Mil. & St. Paul Cons.....1905	82½	95¾	113	125	131	124½	121	113¼
Chi. & Northwestern Cons., g......1902	85¼	102⅛	115	127¾	129	127¾	124	121¼
Chicago, Rock Island & Pacific....1917	100	109⅝	114¼	127	127	127½ 0	125½	120
Cleve., Col., C. & I. Cons. M......1914	88	87½	111 0	121	126	121	118¼	120
Cleveland & Pitts. Cons., S. F.....1900	113½	113	115½	124	125	123½	123	119
Columbus & Hocking Valley 2d....1892	90 0	90	101	103	105	108	105½	104
Delaware, Lackawanna & Western..1907	103½	103	114⅛	124	126¾	130¼	....	130 0
Denver & Rio Grande............1900	38	82	95	114½	119⅜	108½	108	80
Detroit & Bay City 1st............1902	35	80	60	95	112	100	105	116
East Tennessee, Va. & Ga. 1st.....1900	91	100½	101½	116½	120	114	117	111½
Eastern Massachusetts Debentures.1906	50⅛	77	93	102	105	104	105	105
Erie & Pittsburgh Cons. M.... ...1898	90 0	84	106¼	105	110	110	112	108
G. R. & Ind. Ex. l gr. 1st........1899	40	50	100	99	101½	100	107	100
Houston & Texas Central 1st gr....1891	77	92	104	113⅛	117	110 0	107⅝	104½
Illinois Central..................1905	87	98	103	105	106	107	113	105
Jeff., M. & I. 2d M..............1910	72½	89½	102	107½	113	110	115	114

Lake Shore Cons. 1st.............1900	104⅞	111½	120	128	131	125	124¼	121
Lehigh Valley 2d.................1910	105½	114	122	131¾	137	132	132	133
Louisville & Nashville Cons. 1st....1898	90	104½	110½	121½	122	115	117	117 o
Michigan Central Cons............1902	104 o	113¾	117⅜	129	129¼	124 o	104	123¾
Missouri Pacific 2d M.............1891	85⅛	98½	107¾	115	120	112	110	100
Morris & Essex 2d M.............1891	103¼	107½ o	110	117	118½	115	114	112
Nashville, Chat. & St. L. 1st......1913	82¾	109½	107	120	121¼	114	116½	118½
New York Central M.............1903	117	119¼	124	136	136	131	130¼	126
New York Elevated 1st...........1906	....	87½	113¼	119⅞	116¾	114¾	116	112½
New York & Harlem.............1900	120	121¼	124	132½	132	130 o	130½	128
New York, L. E. & W. 1st C., g...1920	75	100	114¾	130⅛	132	126	127	115
Northern Central Cons. M., g......1900	95¼	93½	106¼	116	117½	115¼	117¼	117
Nor. & Wors. 1st....... 1897	100	106	107	115	117	115	116	114
Ohio & Mississippi Cons..........1898	84¾	102	112	118½	121½	117	114¾	111
Old Colony......................1897	104	105¾	109	114	117	117¼	118	118
Pennsylvania Gen. M. coup........1910	106	108¼	115	125	125	125 o	121¾	123
Philadelphia & Erie Guar..........1920	84	86	107	116	122	117	119	119
Philadelphia & Reading M........1911	104	101½	114	124	129½	126	126½	119 o
Philadelphia, Wil. & Balt..........1900	105	103	107½	112	112	114	113½	111
Pittsburgh, F. W. & C. 2d M......1912	112	116¼	122	132	129	136	132	133
Richmond & Danville M..........1890	76½	78	95½	104	103	102½	103	100
Rome, Watertown & Ogdens. 2d M.1892	70	40	80	105	107	107	104	105
Rutland 1st M. 1902	70	60	94	98½	102	94½	92½	93½
St. Louis & Iron Mountain 2d M., g.1897	70	70	96	108¼	113	102½	106	100 o
St. Louis & San F. 2d Class B.....1906	....	26	64½	89¾ o	97	90 o	96⅛	93 o
St. Louis, Vandalia & T. H. 1st....1897	95	99	107	118	120	91	114½	110
Texas & Pacific Cons., g..........1905	80	58	101	99	99	94½	90 o	70
United R. R. N. J. M............1901	105	110	113	117	119	119	121	120
Union Pacific Sink. F............1894	92½	100	113¾	122 o	126	116⅞	117	101
Utica & B. R. Mort..............1891	90	90	95	106	107	107	114	100
Wabash 2d Ext..................1893	70¼	71	96⅞	107⅞	109½	101 o	95	78½
Western Md 3s, Endorsed........1900	108	108	114	121½	122	119	113¾	125

TABLE No. 13—COURSE OF UNITED STATES, STATE AND CITY BONDS.

	1872. Apr.30	1873. Nov. 7	1874. May19	1875. Oct. 9	1876. Sep.29	1877. Apr.23	1878. Oct.18	1879. Nov 15	1880. Dec 27	1881. May26	1882. Nov25	1883. Dec 31	1884. J'ne 27
U. S. 5-81 c.	112¾	106¾	115	117⅝	114¾	112	106⅛	102⅜	101½	105	....	....	....
" 6-81 c.	115¾	112¾	121⅜	123⅜	118⅛	114	108⅛	105¾	104½	104½	....	....	....
" 5-20, n. '65	114¾	109⅞	119⅜	119	113⅜	110⅛	102¾	....	....	....	....	....	....
" " '67	115⅝	112¼	120¼	120⅜	116⅜	112⅞	106⅛	....	....	....	....	....	....
" " '68	115¾	112⅜	120½	121	118⅛	115⅛	108	....	....	....	....	....	....
" 10-40, c.	110¾	106⅝	115	116⅜	115⅝	112¼	106⅜	....	....	....	....	....	....
" " r.	110⅜	107	114¾	117⅜	114⅜	....	....	....	....	....	....	....	....
" Curr, 6.	116½	108⅞	116⅞	124	126	124½	120⅜	124¾	134	134	130	135	131
" coup., 4.	....	....	....	....	....	....	99⅞	103⅛	113⅜	118	118⅞	124⅞	118½
" " 4½.	....	....	....	....	....	....	103⅛	106⅝	111¾	116¼	112¾	114⅞	110
Ala. 8.	81	75	50	35	....	39½	42	25	....	....	....	....	....
Ark. 6 fund.	54	30	25	....	30	25	21	10	21	30	20	11	5
" 7 L. R.	53	15	14	15	11	5	3	5	10	19½	15	20	5
Conn. 6.	101½	100	103	107	110	110	106	106½	107⅛	104	102½	102	102
Ga. 6.	72	59	75	93	91	95	100	100	107	110	105	103	100
" 7 n.	88	75	89½	100	104	106	107½	109½	112	112	107	102½	100
Ky. 6	97½	95½	100	102¼	100	102½	101	100	....	....	....	....	....
La. 6 lev.	67½	50	40	36	41	39	50	....	....	....	....	....	....
" 8, '75	83¾	55	45	36¼	....	39	50	....	....	....	....	....	....
Mo. 6.	95¾	85	97	102	108¼	102	104¼	105½	111	115	108	117	114
N. Y. 6.	106	102¾	110	114	120	112	113	117	120	122	121	116	117
N. C. 6 fdg. '66	25	17	25	17½	....	11	9	9	12	13	10	9	10
Ohio 6. '86	101	95	104	105	105	106	104	110	107	110	110	106½	104
R. I. 6.	101	99	102½	105	110	110	107	114	120	115	118	116	115
S. C. 6, 1st quo.	50	25	25	28	....	38	40	10	8	9½	5	2½	1
Tenn. 6 n.	67½	70	83¼	47½	43½	43	31¾	31	48⅞	71	42	39	37
Va. 6 old.	45½	32	31	40	25	31	20	25	32	40	35	40	30
" 6 cons.	52	48	50	69½	77	82	70	75	105	121	83	60	30

D. C. Consols......	....	....	....	....	....	....	77	84½	104	108¼	108¾	113	109
Ga., gold 7.....1890	....	....	....	....	....	107	108	110	115	118½	113	110	109
Maine, War asd.....	....	....	....	....	....	110	112	114¼	114½	116	113½	112	109
Mass., gold 5....'94	....	....	....	....	....	111¾	110½	110	116	117	114¼	114½	114
Penn. 5.. ....'92	....	....	....	....	....	....	111	111¾	116	118	118	118	118
Tex., g. 7........'92	....	....	....	....	....	109	112	111	114	118	120	120	120
N. Y. 6 g. cons., l..	99	95	95	112	114	106	106	113	127	128	128	132	130
Brook. Pk. 6, City...	94	96	95	101	103	107	106	110	120	126	130	130	135
Jersey C., water 6...	91	90	85	96	100	101	101	96	103	107	112	85	102
Phila. 6 new........	101½	101⅛	104½	108	110¼	113½	115	118	128	130	135	129	125
Pittsburg, water 7...	....	101	100½	105	106	101	102½	113	122½	125	120	120	118
Baltimore 6.....1900	98¾	94½	100¼	105	109	110½	110	113	121	124	123	130	130
Boston 6...........	101	97	100¼	106½	112½	112½	115	117½	128	125	128	126½	128
Chicago 7 sewer....	97¼	97	99	104¼	105½	107½	106	112½	121	124¾	119	116½	116
Cincinnati 7, 30.....	102	104	102	105	110	110	106	115	128½	135	129½	129	125
Louisville, long 6...	81	75	80	90	96	99	97	105½	105	109	109	108	105
St. L. long 6...	89	82	89¼	99½	102	103¼	102	104	110	111	115	110½	108½
N. Orleans cons. 6..	73	70	50	42	40	35	34	31	50	60	....	98	98½
Nashville 6 n........	54	70	70	70	70	70	80	80	100	100	105	100	100
Richmond 6........	79	76	79	88	99½	97	101	104	114½	113	114	115¾	111
Charleston 6........	50	62	50	54	53	50	46	55	80	75	78	74	72
Portland 6..........	....	93	....	....	102½	104	107½	110	117½	121½	120	121¼	117½
Bangor 6.........'94	....	....	....	....	....	103½	102½	101½	109	113	116	111½	110
Buffalo 6.......1926	....	...	....	....	....	101	100	108	107	108	107	112	108
Detroit, long 7......	....	....	....	....	....	108	106	114	115	110	114	114	117
Provid'ce g. 6...1900	....	....	....	....	....	....	114	116½	123	127	126	124	123
Av. U. S. Bonds....	114.03	109.56	117.89	119.89	117.09	114.11	108.26	111.50	119.71	122.75	120.54	124.92	119.83
" State B., Old List.	74.55	62.68	64.96	65.44	66.25	66.44	65.53	....	....	....	....	....	....
" " New List.	....	....	....	....	....	....	75.53	75.53	82.31	86.99	80.94	79.25	74.94
" City B., Old List.	87.77	87.73	87.05	92.45	95.83	95.45	95.94	....	....	....	....	....	....
" " New List.	....	....	....	....	....	97.68	97.87	101.87	111.50	113.61	115.42	114.35	113.97

TABLE No. 14—COURSE OF NEW YORK BANK STOCKS.

	April, 1872.	Oct., 1873.	May, 1874.	Oct., 1875.	Oct., 1876.	April, 1877.	Oct., 1878.	Nov., 1879.	End., 1880.	May, 1881.	Nov., 1882.	End., 1883.	June, 1884.
American	154	135	....	....	....	133	129	....	....	145	153	155	145
American Exchange.	115	99½	111	120 o	100½	103½	100⅜	109½	125 o	128	129½	129	124 o
Broadway...........	270	300 o	....	....	....	....	....	....	....	240	255 o	250	200
Butchers' & Drovers'.	140	150	125	....	126 o	120 o	55	104	121 o	110	100	140	125
Central National....	102	65 o	101	99	100½	100½	93½	105	121	125	125	125	125
Chatham...........	170 o	120	120	....	....	....	100	....	....	118	140	140	145
Chemical...........	1000¼	....	1014	1600	....	1303	1501	1600	....	1761	2001	2020	2000
City................	248	300 o	300	300	300	200	195	....	....	230	245	265	270
Citizens'............	135	275	115	....	120 o	....	....	....	....	100	110	120	110
Commerce...........	117½	100	122½	121¾	108	111 o	118	135	....	153 o	149½	152	147
Continental.........	95	70 o	100	91 o	68	81	75	104½	132	125	121 o	118	100
Corn Exchange......	127	90	122	130	120	125	115	140	....	150	175	165	150
East River..........	110	110	120 o	....	109 o	92½	90	....	90	100	110	120	122
Eleventh Ward......	100 o	....	....	....	....	....	....	....	....	....	...	135	100
First National.. ...	201	....	....	200	200	200	360	500	....	700	800	....	850
Fourth National....	112½	82 o	105	95½	....	99¾	95	106	115	120	125	128½	110
Fulton.............	155	132½	145	....	145	145½	120	....	....	125	125	120	115
Gallatin............	....	120	130	....	....	110	110	135	....	143	160	172	175
German Am.........	108	87½	88	81	70	66 o	70	81	....	95	95	103	102
Germania	120	....	107¼	....	108½	....	....	....	....	95	120	150	150
Greenwich..........	225	207½	....	....	....	....	90 o	120	....	....	....	....	110
Grocers'............	110	100	100	100 o	100 o	90 o	80 o	....	....	....	....	....	....
Hanover	103	102	101	91 o	....	95	100	114	125	123	136	151	152
Imp. & Traders'....	170	150	200 o	205 o	185	189½	202	....	230	230	240	264	245 o
Irving..............	127½	122	124	123	....	118	112 o	....	....	140 o	135	140	130
Leather Mf.	185	150	200 o	200 o	....	180 o	115	....	....	153	190 o	160	150
Manhattan..........	150	140	150	....	....	137	132	140½	....	135	148	158	145

Marine	165	175	140 o	109	....	88 o	85	104	....	150	145 o	162	....
Market	126	110	118½	125 o	....	114 o	105	116	120	121	145 o	140	137
Mechanics'	136½	135 o	130	143	....	135	121	135	....	150	152	152	140
Mech. & Tra.	160	135 o	130	....	....	....	75	75	....	104	100	105	90
Mercantile	126	105	110	109	115 o	115 o	75	....	105¼	118	120	118	120
Merchants'	120½	119 o	120	121	115	115 o	125½	128	123	130	132	131	120
Merchants' Exch.	96	89 o	110	103	....	90 o	70 o	80 o	97½	100	95 o	87	90 o
Metropolitan	140	114 o	140 o	130 o	119	132	116	132½	153	160	169	150	54
Nassau	106	....	104	....	....	....	80	88	105	100	120	130	130
New York	133	120 o	127	130	118	117 o	118	132	....	140	145	170	150
N. Y. Nat. Exch.	97	90 o	87½	102	....	....	....	....	....	100	....	110	100
N. Y. County	210	....	....	....	....	....	....	....	....	....	....	140	145
Ninth National	110	90	100	....	....	70 o	73½	89	115	125	120	120	110
N. American	104	85	90	100¾	91½	91 o	70	85 o	....	102	100	105	95
North River	90	85 o	85	....	....	....	95 o	....	95	98	120	115	115
Oriental	160	....	....	....	....	....	....	....	....	....	140	140	130
Pacific	165	....	150	....	....	140	126	....	....	145	150	160	140
Park	157	115 o	147 o	141¾	....	113 o	85	114	144	160	157	162	150
People's	135	140	144	....	140 o	140 o	....	....	....	120	150	140	120
Phœnix	102	90 o	100 o	98	85	105¼	100	96	100	108	100	105	100
Republic	115½	85	108½	92 o	72	100 o	80	108½	134	135	130	120	112
Second National	180	....	....	....	....	....	....	....	....	....	102½	120	100
Seventh Ward	100	96	98	....	....	....	....	....	...	80	100	105	100
Shoe & Leather	150	133	150	153 o	....	117	106½	125½	....	128	130	138	130
St. Nicholas	113	96	110 o	103	100	100	80	105	....	121 o	130	140	135
State of N. Y.	113½	105	110 o	110 o	110 o	120	98	115	114	130	140	125	110 o
Tradesmen's	150	150	143	....	....	133 o	100	....	....	122	116 o	108	106½
Union	137	130 o	135	....	....	135	145	....	....	148	150	173	150
Average	153.98	146.20	150.56	160.39	157.62	141.11	140.79	154.82	159.15	170.00	181.57	186.37	173.75

TABLE No. 15—COURSE OF BOSTON BANK STOCKS.

	April 30, 1872.	Nov. 7, 1873.	May 19, 1874.	Oct. 9, 1875.	Sept. 29, 1876.	Apl. 23, 1877.	Oct. 18, 1878.	Nov. 15, 1879.	Dec. 27, 1880.	May 26, 1881.	Nov. 25. 1882.	Dec. 31, 1883.	June 27, 1884.
Atlantic............	140	129	135	145	128	133	124	139½	153	152	149	149	158
Atlas...............	121¾	114	117¼	119½	114	115	110	119½	127⅛	127	120	121	123
Blackstone..........	151½	143¼	140	138	117¾	111½	95¾	103½	117	115	108	107	103½
Boston National.....	125	120	124	121⅜	125	114	89½	105	105	123	118	119	117
Boylston............	176	150	154	150	127¾	114½	105	107	114¼	120½	117	116	115
Broadway...........	133	120	120	120	96⅛	85	80	90	90	94	98	100⅝	100
Bunker Hill.........	159	153	153	153	155	170	150	168	160¼	176	180	179½	185
Central.............	....	103¾	103	106	100¾	99	80	99	112½	119½	100	67¼	....
City................	117	112	114	114	116	116	107½	115	120⅛	118	118	118	110½
Columbian..........	140	126½	131	135	140	137	131¼	144	149	143	129½	126	127½
Commerce..........	132½	123	128	129	114	105	80	111	122⅛	125½	118	118	114
Commonwealth......	120	120	118	121½	113½	110	92	103	120	130	113	112½	114
Continental.........	120¼	107	110½	115	108	100	85	104¼	115¼	119½	112½	115¼	111
Eagle..............	121	111¾	100¼	105	113	110	102	108	117¾	120	110	110	104
Eliot...............	130¼	117¾	114	116	110½	105	96½	107¼	113⅜	122½	118½	119	119
Everett.............	138½	131¾	132	118	120⅛	117	94	107	112½	116¾	112¾	113¼	109
Exchange...........	190½	168	172½	172¾	170	160	134½	140½	141	144	127¾	127	117
Faneuil Hall........	144⅞	140	141	145	135	129	123½	125	127½	130	130½	130	129½
First National......	196	189	194	207½	200	195	169	183	202	207½	197	198¼	195
First Ward..........	....	100	103	104	90	85	77½	85	103	103	112	112	113
Freeman's..........	170	130	128¼	133	113¼	111½	89	113¼	122⅛	122½	115¾	116⅜	104
Globe..............	140¾	125	131½	133	120	113½	76	103¾	110	112½	107¾	107	101
Hamilton...........	125	120	121½	126	120¼	116	101	115¼	122	123	117	118	118
Hide & Leather.....	120	112	113¼	112½	109	110	102¼	110¾	117⅛	115¾	109¾	109⅝	116
Howard............	115	109½	112	112	113	113½	103	113¾	120	126½	119	120¼	117
Manufacturers......	....	103⅜	102	105⅝	102	98	86¼	94	107⅜	110½	102¾	100	94

Market	124¼	108	109	113	107¾	107½	91	100¾	107¾	106½	99¾	100	94
Massachusetts	130¼	123¾	125	123	121⅜	116	107	114¼	119	118	111½	112¼	110
Maverick	135	123	122	124	145	140	140	187	225¼	255	220	225	215
Mechanics'	133	125	125	125	130	130	114½	112	125	130	127½	128¼	129
Monument	....	170	175	174	180	180	145	169	180½	203	203	200	200
Mt. Vernon	135	125	125¼	122¼	126	110	87	96	112	117	128½	125⅜	125½
New England	146	136	146½	147	139⅛	138½	130	141	151	151½	129½	130	132
North National	125	120	125	133	130	120	108	124	130½	139	128½	126¼	124
North America	121⅜	104	109	113	105	106½	100	108½	112¼	115	108½	109	107¾
Old Boston	78½	72¾	78	82	69½	64½	62	66⅛	61¼	62	60	59	59¾
People's	157	148	150	153	155	150	135	146½	160	163	159	160	155
Redemption	145¼	140	144	148	145	139	120	125	141½	134½	129½	128⅛	117
Republic	135	123½	128	128	130	127	125	122½	128	129½	125	125¼	125
Revere	125	118	121¼	121	107½	107	100	115¾	120¼	127	114	114	116
Rockland	169¼	160¼	160	158	155	149	122	125	135	140	133	135	137
Second National	158⅞	141¾	153	154¾	138	138	132	143¾	152	150	152	153½	154
Security	140	135	166	172	205	200	185	182	185	175	179¾	180	175
Shawmut	130	123¼	122	121	119	121	104½	114½	120½	122	108	110	115½
Shoe & Leather	144¼	138	135¼	133	117¼	117	100	119	115¾	114	104½	106	95
State	116⅞	106	109¼	112	107⅜	110½	110½	117¾	121¼	125	122	124½	121½
Suffolk	133¼	124	130	127½	125¼	119	110½	116½	123½	124½	117	119	115
Third National	150	140⅛	137	138	131⅛	114	83	90	107	105	98½	97	88
Traders'	119⅛	107	114	114	105	102	90	101¾	104	104½	86	85	90
Tremont	133	126½	123	120	107½	112	99¾	120	121	124	115½	115	106
Union	150	145	154	162	155⅞	145	126½	137	148⅜	148½	139	141	140
Washington	148¼	140	140	147	136	137	125	128½	137	138	129½	127⅛	130
Webster	111⅞	100	108	108	102	100	98¼	104	112⅛	116¾	108	108	101½
Average	136.57	126.48	129.20	130.76	125.80	122.15	108.22	119.58	127.51	131.13	124.50	124.03	121.99

TABLE No. 16—RANGE OF MANUFACTURING STOCKS, 1871–1877.

	1871.		1872.		1873.		1874.		1875.		1876.		1877.	
	Low.	High.	Low.	High.	Low.	High.	Low.	High.	Low.	High.	Low.	High.	Low.	High.
Amoskeag	142½	175	170¼	191½	148¾	184¼	165	177¾	149½	175	145	161¾	140	163
Andros'n	85½	132½	123¼	132	120	126½	120	130	100	122¼	100	105	101	104
Appleton	120¼	150	120	145	113	130½	105	126	89	108	82½	89¼	79½	91
Atlantic	74	94½	87⅞	99¼	78¾	99	67	90	50	81¾	99	101½	101½	119½
Bates	84	119⅜	104¼	115¼	87¾	108⅛	87	96¾	64⅞	87½	65	80	75	95
Boott	125	162½	155	195	182½	200	160½	185	150	170½	133	150	145¾	154
Boston	115	120	120	148	115	132½	109½	128½	90	110	87	98½	87½	100
Boston Belt	....	....	....	....	....	....	....	....	97½	114¼	89¼	100	97	104
Boston Duck	85⅝	107	100⅝	107⅛	95	105	96⅜	157⅞	....	....	....	....	....	....
Cabot	95	120	110	130	108	125	110	123	80	110	80	80½	80	102
Chicopee	300	350	300	350	250	390	250	275	100	250	100	105	103	120
Cocheco	127	170	155	175	150	170	150	210	121	186	120	141	135	148
Continental	65	94⅞	86½	94	77	94½	50	91	20	100	80	80	74¾	80
Douglas Axe	100	120¼	100	110	104	112¾	107¾	120	95	102¾	120	125¼	105	123½
Dwight	86	108	104	130	85	120	85	111	64½	85½	65	74	70	90
Everett	88	112¼	111	130	100	124	82¼	100⅛	70	85	74	80	75	90
Franklin	85	120¼	112	123	100	114½	95	112½	80	100	75	84	69	82½
Great Falls	93	115	100	125¼	108¾	130	85	112	50	90¼	65	77½	77	100
Hamilton	67	92½	92	110	99¾	110	97½	106½	92¼	105½	78	92½	90	107½
" Woolen	190¾	232½	209¾	250	200	230	190	205	175	190	140	170	128	150
Hill	120	138	130	150⅛	125	146¾	122	137½	87½	130	72	87½	75	97
Jackson	124	150½	135	161	123½	153½	119	139¾	97½	119	85	97½	85	107
Laconia	100	125⅝	117¼	137½	107½	137½	101¼	125⅝	81¼	107½	76¼	88¾	80⅝	106¼
Lancaster	157½	185	168¾	185	155⅝	193¾	175	187½	131¼	212½	131¼	206¼	137½	163⅛
Lawrence	75	107½	103½	115½	97	108	100	111½	100	108	100	106½	115	132½
Lowell	130⅜	159½	123¼	150¼	98½	130⅞	98½	125⅜	97⅞	109⅜	79⅝	98⅞	81⅞	91¼

Lowell Blch'y	200	225	212½	225	250	277½	250	277½	247½	252	171	250	132½	171
" Mch Sh	100	112	106	135	122	138	125	143	134	144	135	151	145	151
Lyman......	73	97¼	88	103	90	101¾	85¼	95	59¾	84¼	59¾	63¼	63	84⅞
Manchester..	52½	87¼	52½	70½	32½	52½	81	100	81	115	110	120	120	140¼
Mass. Cotton.	86	110¾	115	140	104	121	100	120	100	110½	93	105¼	103½	110
Merrimack...	117½	150	143	159	145	161½	140½	162	116¾	150⅜	90	116¾	120½	150
Middlesex ...	171⅛	186	126½	172¾	119¾	140	125	150	128¼	147½	131	140	134	171½
Nashua......	105	146	130	149	121	148	127	144	100	134	105	120	103½	120
Naumkeag...	90½	137¼	120	140⅝	104	129	101¼	125¼	95	113¾	84¾	102¾	88⅝	112½
N. E. Glass..	103	120	91½	110	84	98	80	100	55	80	40	55	28	42½
Otis.........	135	170	110	170	120	135	125	130	115	125	105	115	105	110
Pacific.......	152½	185	177½	205½	190	202½	192½	214¾	190	214¼	169½	200¼	182½	200
Pepperell....	110	138	140	151½	142½	155½	147½	164	144	152½	140	151	142½	155
Salmon Falls.	72	101⅜	90	100	90	105	79⅛	90⅝	58⅜	80	33⅜	58⅜	50	70
Sandwich G..	102½	120	106⅝	120⅞	93½	110	77½	95⅜	60¼	77½	35	62½	21⅞	39⅜
Stark Mills..	86	116	120	137½	99½	120½	105	116⅜	90	110	80	90	80	91
Tremont.....	78	109	109	130	107½	143	114¾	133½	115	120	115	122	120	137
Thorndike...	65	75½	75½	85	83	100	84	107	97	103	90	100	80	90
Washington..	88	111	89¼	105¼	65	89¾	45	61½	50	70	50¼	70	70	90
York Mills...	142	173	165	200	171	186	125½	184¼	122½	132¾	122	137¼	135	150
Average...	110.34	138.45	124.60	146.03	119.21	142.03	116.43	137.77	103.52	130.11	98.91	115.25	98.54	115.71

TABLE No. 16—CONTINUED—RANGE OF MANUFACTURING STOCKS, 1878–1884.

	1878.		1879.		1880.		1881.		1882.		1883.		1884.	
	Low.	High.	Low.	High.	Low.	High.	Low.	High.	Low.	High.	Low.	High.	Low.	High.
Amoskeag....	150½	160¾	151	182½	176½	201¼	200½	259½	212½	250	196½	212½	180	204¾
Androscoggin	69¾	101	72	120	115	130	120	139	125	139	126½	133	112	133⅛
Appleton....	65	82	64	100	100	112	112	125¼	115½	121¼	117½	138½	105	117½
Atlantic......	110¼	120	109¾	140¼	137	151½	146	180¼	145	178	137	150½	100	137
Bates	27	115¾	115¾	150	150	205¾	200	250	194	250	165	198	112¾	170
Boott........	145½	157½	147	200	194	206	200	230	205	220	185	205	150	185
Boston.......	92	95	93½	122½	122½	162½	132½	160	111½	132½	104	112½	94½	104
Boston Belt...	100	150	110¼	163¼	150	175	166¼	191	157¾	178⅝	137¾	162½	131⅛	150¾
Boston Duck.	100	100⅝	100	122⅛	122⅛	131¼	127⅝	147⅜	142⅞	150	135⅝	142⅝	122⅛	143⅝
Cabot........	90	93	90	130	125	133	130	148	125	143	112	125	104	112
Chicopee	108	113¾	108	150	149	161½	150	202½	180	200	156	185	120	160
Cocheco.....	105	143	116	145	145	157	157	185	136	176	104	136	89½	106½
Continental...	38	78¼	36	65	65	83½	75	91¾	85	95¾	75	83	64¼	75
Douglass Axe	95	110¼	77	105	105	119½	115½	127½	121	127½	120	126¼	80	120
Dwight......	79½	91	80	130	129½	154	147	170	143	160	130	146	110½	130½
Everett......	82	90½	85	126½	121	141	121	170	125	170	80	125	87½	95
Franklin.....	43	72	45	95½	95	109¼	105	118¾	113	119	96	114¾	96	98¼
Great Falls..	78	100	78	105	105	128½	107¼	121⅞	85	113	72¾	96	56	75
Hamilton....	87½	95¾	87½	110	110	120	118	126	110	124¼	95	110	74¾	95
Hamilton W.	115	125	120¼	225	175	275	175¼	207¼	115¼	175¼	110	115½	75	100
Hill.........	49¾	80	50	100¼	90	114¼	97½	112	97	106	87	98¾	79	89
Holy'ke W. P.	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Jackson......	100	107½	100	120	120	125	122	142½	112½	135	115½	120	106	120
Laconia......	99¼	105	101¼	125	125	143¾	135	151⅞	141¼	156¼	120	141¼	103⅛	122½
Lancaster....	163⅛	186¼	175	203⅛	203¾	226⅞	212½	239⅞	156¼	225	118¾	156¼	118¾	130
Lawrence....	125	134	128	160	160	175½	165	185¼	164¼	181	155½	164½	148½	158½

Lowell........	58	83⅜	72½	123⅛	118⅛	144⅞	101½	139⅛	100	111⅛	90⅞	105½	79⅞	90⅞
Lowell Bleach	98¾	137	92¼	115	115	126¼	125	140¾	123½	142¼	112½	123½	115	118⅛
Lowell M. Sh.	140½	151	130	160	160	170	185	420	190	253	179½	190	141	180
Lyman.......	69½	75	70	102	101	115	112	121¼	109	120	90	110	57¾	90
Manchester...	110	132	117	165	165	190	150	201¾	135	162	121	135	127¾	135⅜
Mass. Cotton.	103	112	103¼	122½	114½	140	133	142	132½	140¼	116¼	132¾	103	116¼
Merrimack...	120	137½	126	152½	152½	168½	162	200	122½	185	120	134	112¾	127½
Middlesex....	165	180	170¼	232	230	250	250	257¾	220	250	197½	237½	150	200
Nashua.......	100½	112½	101	155	141	155	145	152½	124	145	123	140	95	123
Naumkeag...	68½	90¼	72½	110	103	122½	120	130½	120	128⅛	117⅛	132	96½	125¾
Otis..........	106	106	106	125	125	130¼	130	135	125	130	125	140	130¼	145½
Pacific........	160	193½	160½	230	230	275	190	285	130	199	113¼	143¼	121	146½
Pepperell....	140	160	144½	173	173	195	195	250½	224	244	217	229½	98	108½
Salmon Falls.	60	78⅜	83⅜	118⅜	116⅝	133⅜	127½	136⅝	113⅜	133⅜	96⅝	116	98⅜	102½
Sandw'h Glass	25	25⅜	23⅝	41⅜	31¼	75	63	76¼	50	62½	61¼	63¾	62½	82½
Stark Mills...	82	90½	90½	122½	122½	140	130	146½	140	150½	116	140⅛	89½	119¾
Tremont.....	113¼	132¼	110	135	135	147½	157½	175¼	149½	175¼	150	157¼	115	155¾
Thorndike...	70	70	70	100	92½	100¼	95	110	110	110	110	110	102½	110
Washington..	68	88¼	64¾	100	84	97½	85	108¼	60	85	30	63	13	34
Willimantic L	....	....	....	....	....	....	....	....	...	....	....	....	....	....
York........	142⅝	160	141⅜	164	144⅝	172⅝	166⅝	181⅝	136⅝	181⅝	106⅝	136⅝	107	110
Average....	95.97	113.84	99.77	136.94	132.10	153.14	141.35	170.96	134.08	158.53	121.02	138.63	103.03	123.44

TABLE No. 17—COURSE OF MANUFACTURING STOCKS.

	Apl. 30 1872.	Nov. 7 1873.	May 19 1874.	Oct. 9 1875.	Sep. 29 1876.	Apl. 23 1877.	Oct. 18 1878.	Nov 15 1879.	Dec 27 1880.	May 26 1881.	Nov 25 1882.	Dec 31 1883.	June 27 1884.
Amoskeag	178½	170	168	150	161¼	160	153	175	201	204½	226	204¾	185½
Androscoggin	128	125	127¾	110	105	103	74	107	120	132	134	130	125½
Appleton	145	119½	120	100	87½	90	75	95	112	120	119½	117½	105
Atlantic	90¾	92	83	65	101	112½	113½	127	146½	165½	159	137	105
Bates	110	93	95¾	69	75½	84	113½	143½	200	207	204	165	150
Boott	188	190	185	170	142	153½	145	181½	201¼	200	200	185	160
Boston	132½	120	125½	100	90	90	92½	109	160½	147½	111½	104	97¼
Boston Belting	....	....	....	....	....	....	115¼	162¼	166¼	172	163½	138	149
Boston Duck	104¼	96½	107⅛	110⅝	92⅞	97	100	103⅝	132⅛	146½	150	139¾	142⅞
Cabot	125	120	120	100	80	102	90	100	123	130	125	112	104
Chicopee	325	265	271	105	105	116½	110	125	150	150	190	156	145
Cocheco	160	160	180	163½	140	140	120	130	155	164	138	106½	90
Collins	....	....	....	....	....	....	62½	75	97½	107½	125	110	90
Continental	89	93	85	25	80	78	44	45	75	86	89	75	68
Douglas Axe	105	105¼	115	123¼	120	120	98	101	115½	116	120	120	100
Dwight	114	109½	106	71¼	74	80	82	115	147	152	148	130	117
Everett	125	105	98¾	70	79	90	90½	125½	121	130	130	85	92
Franklin	116¾	105	108½	90	75	77½	45	80	100	110½	116½	96	96
Great Falls	118	115	101½	54	73	85	84	100	121	112¼	95	75	58⅛
Hamilton	102	104	102½	99½	85	105	90	100	112½	118	114	95	75¾
" Woolen	210	200	200	175	155	140	115	201	181	197	115½	100	85
Hartford Carp.	....	....	....	....	....	....	221	237	276	279	255	200	200
Hill	145	130	133	99¾	72	83	52	98	98	105	98¾	88	80
Holyoke W. P.	....	....	....	....	....	....	144	180	235	225	228	225	220
Jackson	140	135	137½	100½	85	105	100	105	122	120	116½	120	106
Laconia	123¾	112½	119⅜	81¼	80	96¼	100	123⅛	138¾	138¾	141¼	122½	115
Lancaster	175	173¾	175	201¼	173¾	143¾	176¼	200	207½	218¾	156¼	123¾	129⅜

Lawrence	109½	102½	109	103	105	130	126½	145	165½	166	165	155½	148½
Lowell	143½	118½	119⅝	100¾	90⅝	83⅜	77½	105⅝	137⅝	134	100	90⅞	80¾
" Bleachery	215	250	275	250	175	150	100	100	125	140	120	115	117
" Machine Sh.	127½	130	135	138	150	151	143	155	165	150	195	180	160
Lyman	91	95	92¾	64	60	74	70	92	115	120	112½	90	65
Manchester	57	29	16⅝	110	120	135	117	133	184	190	144	127¾	130
Mass. Cotton	117¾	111¾	120	100	104	107½	103½	115	126¾	133½	132	116¼	112¾
Merrimack	147	156½	158	135	122½	130	126	150½	162	175	160	127½	118
Middlesex	160	140	146¼	132¼	135	160¾	165	215	250	250	219	200	150
Nashua	143	140	132	105	105	120	105	120	150	144	128	123	95
Naumkeag	134	112	118	100	100	102¼	80	106	120	124	124½	123	110
N. E. Glass	100	84	84	70	45	40	9⅜	19½	20¼	20¼	24¼	21⅛	19¼
Otis	170	135	130	120	110	110	106	110	130¼	130	125	140	143
Pacific	190	191½	199	195½	170	182½	160	200	255	259	152½	121	128
Pepperell	147	145½	164	146	144	152	144	158	195	212	227	217	201
Salmon Falls	93	105½	90	73⅜	33⅜	70	76⅝	105	162⅝	128⅜	115	96⅝	98⅜
Sandwich Glass	110	96¼	81¼	78⅝	37½	36¼	25	27½	63¾	72½	60	62½	79⅝
Stark Mills	125	108	111¾	92½	83	90	84	112½	130	131½	135	116	95
Tremont	112	120	128	115	118	132½	114	134¾	147¼	161	149	155¾	130
Thorndike	80	90	102½	100	90	85	70	85	95	95	100	110	105
Washington	104⅛	70	53	55	61	75¾	80	89	90	96	65	34	17¼
Willimantic L.	....	....	....	....	....	....	264	316	340	352	....	200 0	160
York	184¾	183	180	123½	130¾	140½	154	159⅜	166⅝	164⅝	156	110	108
Average 45	135.80	127.84	129.04	109.80	102.70	109.12	100.00	120.50	141.72	146.00	135.70	120.46	109.87
Average 50	....	....	....	....	....	....	106.12	127.96	149.84	154.07	141.56	125.87	115.27

TABLE No. 18—DIVIDENDS ON INACTIVE STOCKS.

Stocks—	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.
Alb. & Susq.	7	7	7	7	7	7	7	7	7	7	7	7	7
Balt. & Ohio	9	10	10	10	10	8	* 8	a 8	9	10	10	10	10
Boston & Albany	10	10	10	10	9	8	8	8	8	8	8	d 8	8
Boston & Lowell	8	28	7½	3	....	....	4	2	4	4	4	5	5½
Boston & Maine	10	8	8	8	6	5	6	6	7½	8	8	8	8
Boston & Prov.	10	10	10	9	8	6	6	6½	8	8	8	8	8
Ced. Rapids & Mo.	2½	4	4	4	4	4	4	4	4	5	6	6	3
" Pref.	7	7	7	7	7	7	7	7	7	7	7	7	3½
Chicago & Alton	10	10	10	9	8	7½	7	6	6½	8	8	8	10
" Pref.	10	10	10	9	8	7½	7	7	7	8	8	8	10
Cleve. & Pittsburg.	7	7	7	7	7	7	7	7	7	7	7	7	7
Col. & Z.	8	8	8	8	8	8	8	8	8	8	8	8	8
Concord	10	10	10	10	10	10	10	10	10	10	10	10	10
Concord & Port.	7	7	7	7	7	7	7	7	7	7	7	7	7
Conn. River	10	10	10	9	8	8	8	8	8	8	8	8	8
Day. & M. Pref.	8	8	8	8	8	8	8	8	8	8	8	8	8
Fitchburg	8	8	8	8	8	6	7	6	6	7	6	6	5½
Harlem	8	8	8	10	10	10	11	11	11	11	10	10	10
" Pref.	8	8	8	10	10	10	11	11	11	11	10	10	10
Joliet & C.	7	7	7	7	7	7	7	7	7	7	7	7	7
Lehigh Valley	10	10	10	10	9	5½	4	4	4	5½	6½	8	8
Lake Miami	8	8	8	8	8	8	8	8	8	8	8	8	8
Manch. & L.	10	10	10	10	10	10	10	10	10	10	10	10	10
Morris & Essex	7	7	7	7	7	7	7	7	7	7	7	7	7
Nashua & L.	10	10	9	....	2	4	2	6	7	8	8	7	7
N. Y. & N. H.	10	10	10	10	10	10	10	10	10	10	10	10	10
N. Y. Elevated	....	....	....	....	....	....	....	10	10	10	....	....	.....
North. N. H.	8	8	7½	6	5	5	5	5	6	6	6	6	6

Nor. Penn....	* 5	* 5	* 5	8	6	a 6	* 4	g 5	6	6½	7	7½	8
Norw. & W.........	10	10	10	10	10	10	10	10	10	10	10	10	10
Old Colony.........	6½	7	7	7	6	6	6	....	6	6	6½	7	7
Pennsylvania........	10	a 10	10	8	8	3½	2	4½	7	8	g 8½	k 8½	g 7
P. Ft. & W.........	7	7	7	7	7	7	7	7	7	7	7	7	7
P. G. & Norr.......	12	12	12	12	12	12	12	12	12	12	12	12	12
Penn. Coal.........	20	20	m 20	20	20	8	12	12	12	12	12	16	16
P. Saco & P........	10	10	10	10	6	6	6	6	6	6	6	6	6
Ren. & Sg..........	7	8	8	8	8	8	8	8	8	8	8	8	8
T. H. & Ind........	12	11	10	10	10	6	8	8	8	8	8	8	8
U. R. R. N. J......	10	10	10	10	10	10	10	10	10	10	10	10	10
Vermont & Me......	4	2	3	4	4¾	5	5¾	6	6	6	6	6	6
Warren............	7	7	7	7	7	7	7	7	7	7	7	7	7
Adams Express.....	8	8	8	8	6	4	8	8	8	8	8	8	8
American..........	6	6	6	6	6	4½	3	3½	4	5	6	6	6
United States......	8	8	8	8	n 8	....	1	3	4	4	4	4	4
W.. Fargo..........	6	8	8	8	8	8	8	8	8	8	8	8	8
Total 45 stocks, cash..	371	387	370	362	343¾	295½	299¾	316	342	353	342½	347	345½
Total 45 stocks, scrip.	5	10	5	....	8¼	6	12	6	....	....	2	14	2

DIVIDENDS ON ACTIVE STOCKS.

Stocks—	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.
Atch. Top. & S. F...	....	....	....	....	....	....	....	3	8	e 6	6	6	6
Canada Southern....	....	....	....	....	....	....	....	....	....	2½	....	2	2
Catawissa..........	....	....	....	1	1	....	....	....	....	....	....	....	....
Central of N. J......	10	8	10	10	5	....	....	....	....	....	....	1½	4½
Central Ohio..	6	6	6	6	2½	3½	4	3¾	6	6½	6	6	6
Central Pacific......	....	3	5	10	8	8	....	....	6	6	6	6	3
Cheshire Preferred...	5	5	5	4	....	1	1	1	3	3	3	3	3

TABLE No. 18—Continued—DIVIDENDS ON ACTIVE STOCKS.

Stocks—	1872.	1873	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.
Chic., Bur. & Quincy	10	10	10	10	10	9	8	8	b 9½	8	8	8	8
Chic., M. & St. Paul.	....	....	....	....	....	....	....	2½	7	7	7	7	7
" Preferred.	7	† 7	† 7	† 7	i 3½	3½	10½	7	7	7	7	7	7
Chic. & Northwest..	3½	....	....	....	....	....	5	5	6	6	7	7	7
" Preferred.	7	3½	....	....	2½	3½	7	7	7	7	7¾	8	8
Chic., R. I. & Pac...	8	8	8	8	8	8	8	8½	c 7½	7	7	7	7
Chic., St. P. & O. Prf	....	....	....	....	....	....	....	....	....	7	7	7	7
Cin., Ham. & Day..	8	8	8	....	....	....	....	....	5½	....	....	6	6
Cin., Sand. & Cl....	* 10	....	....	....	....	....	....	....	....	....	f 2	....	2
Cl., Col., Cin. & Ind.	7	7	4	3½	3	....	....	....	2½	5	....	2	....
Delaware & Hudson..	10	10	10	10	9	....	....	....	....	4½	7	7	7
Del., Lack. & West.	11	10	10	10	7½	..	....	....	1½	6¼	8	8	8
Denv. & Rio Grande.	....	....	....	....	....	....	....	....	....	4½	1½	....	....
Dub. & Sioux City..	4	4	5	5	6	3½	5½	4	6½	5½	6	6	4
E. Tenn., Va. & Ga.	....	....	6	3	3	....	3	3	6	3	....	....	....
Han. & St. Jo. Pref.	....	....	....	....	....	....	....	....	3	7	7	3	....
Illinois Central......	10	10	8	8	8	4	6	6	6	7	7	h 8	10
Lake Shore.........	8	8	....	2	3¼	2	3	5½	8	10	8	8	7
Long Island........	4	4	....	....	....	....	....	....	....	....	1	4	4
Lou. & Nashville....	7	7	7	....	....	1½	3	4	c 8	6	3	....	....
Michigan Central....	10	* 4	....	....	....	....	2	3½	8	6½	....	5	3
Missouri Pacific.....	5	5	5	....	....	....	....	....	1½	6	6¼	7	7
Nash., Chat. & St. L.	6	....	5½	1½	3	1½	2½	3	2	5	1½	2	2
N. Y. Cent. & H. R.	8	8	8	8	8	8	8	8	8	8	8	8	7½
N. Y., L. Erie & W..	1¾	1	....	....	....	....	....	....	....	....	....	....	....
N. Y., L. E. & W. Pf	7	7	....	....	....	....	....	....	....	....	6	6	6
N. Y., L. E. & W. 2ds	....	....	....	....	....	....	....	....	6	6	6	6	....
Northern Central....	6	7½	7	....	3	....	....	....	....	5½	6	8	8
Nor. & Westn. Pref..	....	....	....	....	....	....	....	....	....	....	4	....	* 3½

Nor. Pacific Pref....	....	....	....	....	....	....	....	....	....	....	....	* 11.1	....
Ohio & Miss. Pref...	7	7	....	3½	....	....	....	....	....	....	....	....	....
Oregon & Trans.....	...	....	....	....	....	....	....	....	....	....	....	6	....
Oregon & Nav......	....	....	....	....	....	....	....	2	d 8	8	8	10	6½
Pacific Mail........	....	....	....	....	....	....	....	....	....	....	...	....	3¾
Phil. & Reading.....	10	10	10	10	2½	....	....	....	....	....	....	....	....
Pullman Car Co.....	12	12	12	11	8	8	8	8	8	9½	9½	9½	8
Quicksilver.........	....	....	....	....	....	....	....	....	....	2¼	.4	....	....
Quicksilver Pref.....	....	....	....	....	....	....	....	....	....	9¼	6	....	3
Richmond & Danv..	....	....	....	....	....	....	....	....	....	5	7	....	....
Rome, Wat. & O.....	7	3	7	6	....	....	....	....	....	....	....	....	....
Rutland Pref........	* 7	* 7	a 7	3½	....	....	....	....	....	1½	2	1	1
St. L., A. & T. H. Pf	* 21	...	3	....	....	....	2	....	....	j 3	7	7	7
St. L., I. M. & S....	....	3	....	....	....	....	....	....	....	....	....	....	....
St. L., K. C. & N. Pf	2	....	....	....	....	....	....	....	....	....	....	....	....
St. L. & S. Fran 1st Pf	....	....	....	....	....	....	....	....	....	7	7	7	7
St. P., Minn. & Man.	....	....	....	....	....	....	....	....	....	3	9	8	7½
Tol., Wab. & W. Pf..	7	7	....	....	....	....	....	....	....	....	....	....	....
Union Pacific.......	....	....	....	3¼	8	8	5½	6	6	6¾	7	7	3½
Vermont & Canada..	4	....	....	....	....	....	....	....	....	....	....	....	....
Wabash Pref........	....	....	....	....	....	....	....	....	....	6	....	....	....
Western Union......	....	....	4	8	5	6	6	6½	7	6	6	6¾	7
Consolidation.......	4	4	4	4½	2½	2½	....	....	....	2½	2	....	....
Maryland Coal......	....	....	....	1	1	....	....	....	....	....	....	....	....
Spring Mt. Coal.....	5	....	5	8	8	7	7	7	7	7	7	7	....
Total Cash.......	227¼	186	176	158¾	129¼	88½	105	112¼	175½	245½	237.9	238¾	211¼
Total Scrip.......	38	18	10½	7	14	....	....	....	230	105	10	28.1	3½

(*) Scrip or Stock. (+) Bonds. (a) Including one-half in Scrip. (b) Also 20 per cent. Stock. (c) Also 100 per cent. Stock. (d) Also 10 per cent. Scrip. (e) Also 50 per cent. Stock. (f) Also 10 per cent. in Stock, Col., Cin. & Spr. R. R. (g) Includes 2 per cent Scrip (h) Also 17 per cent, extra in leased line Stocks. (i) Also 14 per cent. in bonds. (j) Also 55 per cent. accumulated dividends in bonds (k) Includes 4 per cent, Scrip. (m) Said to have been 45 per cent, in this year, but find no record of dividends exceeding 20 per cent. (n) Also 8¼ per cent, Scrip.

TABLE No. 19—DIVIDENDS ON MANUFACTURING STOCKS.

	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.
Amoskeag	18	14	14	9	9	8	10	10	10	11	15	13	10
Androscoggin	10	10	10	9	6	6	3	3	8	10	10	10	10
Appleton	12	9	3	....	....	....	....	....	3	6	6	6	3
Atlantic	8	8	....	3	....	3	6	6	8	10	10	10	6
Bates	10	8	8	....	3	6	3	8	9	12	13	12	10
Boott	20	16	12½	8	8	9	7	10	10	10	12	12	3
Boston	10¼	8	6	6	6	6	6	6	7	6	6	6	6
Boston Belt	....	....	....	....	....	....	....	10	11	12	12	10	11
Boston Duck	11	10	10	8	6	7	7	8	9	10	10	10	8
Cabot	10	10	10	5	....	7	5	10	10	10	10	9	6
Chicopee	50	30	10	5	7	7	7	8	10	12	12	11	7
Cocheco	20	20	20	15	5	9	6	7	10	10	8	2	2
Collins	....	....	....	....	....	....	3	3	6	7	7½	5½	5½
Continental	8	8	4	....	....	....	....	....	....	....	....	....	4
Douglass Axe	9	11	10	9	6	7	5½	2	7	6	6	6	....
Dwight	5	10	6	....	....	....	....	3	8	9	10	10	7
Everett	9	....	3	....	3	3	2	6	8	10	8	....	....
Franklin	8	8	8	3	....	....	....	3	7	8	8	6	6
Great Falls	10	10	3	....	....	....	....	6	6	6	3	3	....
Hamilton	9	8	8	7	3	6	3	3	7	8	8	5	....
" Woolen	20	15	10	10	10	10	10	10	43½	10	6	....	....
Hill	16	14	10	7	....	3	....	3	6	6	6	6	5
Holyoke W. P.	....	....	....	....	....	....	....	....	10	10	10	10	10
Jackson	18	14	12	6	3	6	6	7	7	9	9	10	7
Laconia	11	12	7	....	....	6	6	6	8	8	8	8	7
Lancaster	20	22½	20	20	15	12½	20	20	67½	14	9	7½	6
Lawrence	6	6	6	6	6	8	8	9	10	10	10	10	9
Lowell	10.1	7¼	6½	5.8	2.9	2.9	4.3	5.1	9.4	2.9	5.1	3.6	2.5

Lowell Bleachery....	20	20	18	10	8	6	3	2	5	6	6	6	6
" Mach. Shop..	12	12	37	12	12	40	10	30	10	60	10	10	10
Lyman..............	10	8	6	3	....	6	6	6	7	8	8	6	2
Manchester.........	22	....	....	7	8	8	7	9	12	12	7	7	8
Mass. Cotton........	16	12	8	3	6	6	6	6	6	6	8	8	4
Merrimack..........	18	13	10	4	5	8	6	7	10	10	7	6	6
Middlesex.........	13	9	14	9	10	19	11	19	20	12	11	12	11
Nashua.............	16	12	11	8	6	4	6	9	9	8	8	7	....
Naumkeag..........	15	8	7	6	3	6	....	5	6	8	8	8	6
N. E. Glass........	9	....	4	6	....	....	....	....	....	....	....	....	....
Otis................	15	10	10	10	9	8	8	8	9	8	10	10	10
Pacific.............	22	20	20	20	16	20	13	14	22	20	5	....	5
Pepperell...........	11	12	12	12	11	10	10	10	12	15	14	14	12
Salmon Falls..	10	9	3	....	....	2	4	5	4	8	8	8	5
Sandwich Glass.....	8¾	5	....	....	....	....	....	....	6	6¼	3	6¼	7½
Stark Mills.........	13	11	11	7	3	3	6	8	8	8	10	9	2
Tremont...........	9	9	8	8	8	8½	6	6	6	9	10	10	6
Thorndike..........	8½	10	9	6	6	7	7	7	8	8	9	10	7
Washington.........	10	....	....	....	6	6	6	....	6	4	....	....	....
York...............	35	18	11	9	8	8	9.3	9.6	10	10	9	....	5
Average..........	14.03	10.81	9.24	6.26	4.97	6.84	5.48	7.08	10.24	9.77	8.09	7.06	5.49

In computing the averages here given, all the stocks named (48) are included for 1880 and later years; Holyoke Water Power is not included for 1879 or earlier years, as its dividend for those years is not known; Boston Belting Co. is not included for 1878 or earlier years, and Collins is not included for 1877 and earlier years, for the same reason.